*2020-2021 Harvard College Handbook for Students*

# Welcome

Dear Students in Harvard College:

For almost four centuries, Harvard College has been educating responsible citizens and citizen-leaders for our society. When you join the Harvard community, you are embarking on a liberal arts and sciences education that is meant to be transformative – academically, socially, and personally. The Handbook for Students is designed to orient you to Harvard College as you begin this journey. It contains information on the academic, social, and personal development opportunities available to you and the many resources to help you find advice and make good choices.

The Handbook can be your guide to academic requirements, our residential system, and the many activities that take place outside the classroom. You will also find in these pages the broad outlines of the concentrations and secondary fields offered by the College. Importantly, the Handbook clarifies the values and standards we hold as a community and that we expect you to honor in your conduct as a student in the College. If you ever have questions about any of these standards, please do not hesitate to reach out to your professors, TFs, tutors, proctors, or Allston Burr Resident Dean or Resident Dean of First-Year Students. As members of an academic community committed to the search for truth and knowledge, we all share the responsibility for upholding these standards. To that end, the College has adopted an honor code. The Honor Code is the result of several years of open discussion and collaboration between students, faculty and staff. A copy of the code can be found on the Honor Code website.

As you read this Handbook, I hope you will consider the numerous possibilities it suggests. The next four years provide the best possible opportunity for you to stretch, take a chance, in your curricular and extra-curricular life. There is no one best way to “do Harvard,” and students who are open to new experiences get the most from their time here. Your years at Harvard will be well spent if you venture beyond your “comfort zones” both inside and outside the classroom. Take time to reflect on who you are and who you are trying to become. Take classes in subjects that introduce you to fields and ideas outside of your concentration and help you develop new ways of thinking and understanding. Participate in activities you have never tried. And most important of all, reach out to and connect with people who are different from you. The Harvard community is staggeringly diverse in interests, talents, backgrounds, demography, and values. Our ability to meaningfully engage in a diverse community can set the patterns for the changes we want to see in our larger society.

Life at the College, as anywhere, can be confusing and feel overwhelming. Remember that there are many people available here to help you work through these moments and think through your choices, both academic and otherwise. Seek out advisers you like and trust, and never be afraid to ask for some of their time. We hope that you will read this Handbook carefully and use it to find the support you need. You don’t have to earn the right to ask for help. Everyone at the College wants you to flourish.

I look forward to meeting many of you at functions both formal and informal. Please feel free to come to my office hours to discuss any issues of concern to you, or just to get acquainted. If you see me on campus, please introduce yourself. You can also email me at rkhurana@fas.harvard.edu.

If there is anything we in the College offices can do to help you better navigate your college life, I hope you will let me know. We want you to feel a part of the rich and varied community that is Harvard. I wish you a happy, healthy, and fruitful year.

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## Introduction

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# Notice to Students

This website contains a review of the rules and procedures of Harvard College with which students are expected to be familiar. Included are the College-wide requirements for the AB and SB degrees. Specific requirements for each of the fields of concentration and secondary fields can be found under the Fields of Concentration and Secondary Fields headings. Also included here is information on a number of the services, programs, and organizations that have been created to bring assistance and enrichment to a student's undergraduate experience. Throughout this website, "the Registrar" refers to the Office of the Registrar of the Faculty of Arts and Sciences.

Harvard University makes all decisions concerning applicants, students, faculty, and staff on the basis of the individual's qualifications to contribute to Harvard's educational objectives and institutional needs. Discrimination on the basis of race, color, sex, sexual orientation, gender identity, religion, age, national or ethnic origin, political beliefs, veteran status, or disability unrelated to job or course requirements is inconsistent with the purposes of a university and with the law. Harvard expects that those with whom it deals will comply with all applicable anti-discrimination laws.

In May of 2019, the completion or graduation rate for students who entered Harvard College as first-year students in September 2013 was 97 percent.

Review of academic, financial, and other considerations leads to changes in the policies, rules, and regulations applicable to students. The Faculty of Arts and Sciences therefore reserves the right to make changes at any time. These changes may affect such matters as tuition and all other fees, courses, degrees and programs offered (including the modification or possible elimination of degrees and programs), degree and other academic requirements, academic policies, rules pertaining to student conduct and discipline, fields or areas of concentration, and other rules and regulations applicable to students.

The public health crisis occasioned by the COVID-19 pandemic has caused unprecedented social and economic disruption worldwide, in the United States, and in the Boston/Cambridge area. Anticipating that continued in-person, on-campus instruction would increase the risk of infections in our community, the University acted promptly in March to "de-densify" its campus and transition to online instruction. Harvard reached this decision after careful (but time-pressed) deliberation, drawing on insights and expertise from public health experts worldwide — including on the Harvard faculty.

As we look ahead to the fall and beyond, we are planning for several contingency scenarios that would protect the health and safety of our community, preserve our ability to adapt to evolving circumstances, and ensure the continuity of our teaching and research mission. The Faculty of Arts and Sciences and Harvard College continue to retain the discretion to apply its considered judgment to the question of how best to pursue its educational programs during the COVID-19 crisis, which may include, among other things, making recourse to online instruction and instituting compulsory testing and tracing programs as required conditions for accessing the Harvard campus or Harvard facilities.

While every effort has been made to ensure that this book is accurate and up to date, it may include typographical or other errors. Changes are periodically made to this publication and will be incorporated in new editions.

Lauren Mulcahy, Case Manager, Office of Academic Integrity and Student Conduct
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# The Mission of Harvard College

The mission of Harvard College is to educate the citizens and citizen-leaders for our society. We do this through our commitment to the transformative power of a liberal arts and sciences education.

Beginning in the classroom with exposure to new ideas, new ways of understanding, and new ways of knowing, students embark on a journey of intellectual transformation. Through a diverse living environment, where students live with people who are studying different topics, who come from different walks of life and have evolving identities, intellectual transformation is deepened and conditions for social transformation are created. From this we hope that students will begin to fashion their lives by gaining a sense of what they want to do with their gifts and talents, assessing their values and interests, and learning how they can best serve the world.

# A Brief History of Harvard College

Harvard was founded in 1636 by vote of the Great and General Court of the Massachusetts Bay Colony and named for its first donor, the Reverend John Harvard, who left his personal library and half his estate to the new institution. Although nothing remains of its earliest buildings, brass markers in the middle of Massachusetts Avenue now indicate where the Goffe and Peyntree Houses once stood. The charter granted to Harvard by the Colony in 1650, with amendments and John Adams's further definition in the fifth chapter of the Massachusetts Constitution of 1780, is the authority under which the University of today operates.

Like any institution, Harvard has a rich and complex history. Many of our graduates and faculty members, as scholars and citizens, have shaped the political, social, and economic landscape of our nation in countless ways that have contributed to the well-being of society and humanity. As a human institution, we have also sometimes fallen short of our aspirations. There are parts of our history that we can and should learn from. Our falling short in no way detracts from the power of our ideals. Rather, our failures remind us that we should never take for granted what we do and how we do it; we must recognize that as a community devoted to learning, our work is never complete.

**The Early Centuries**

For its first two hundred years Harvard College followed a set curriculum consistent with the instructional style of the period. It emphasized rhetorical principles, rote learning, and constant drilling. The faculty was very small, yet already distinguished. John Winthrop (AB 1732), who held the Hollis Professorship and taught mathematics and natural philosophy from 1738 to 1779, was one of America's greatest men of science in the colonial era.

Harvard's oldest buildings date from the eighteenth century. Massachusetts Hall (1720), Wadsworth House (1726), and Holden Chapel (1744) are the earliest. Hollis Hall has been a dormitory since it was built in 1763. Harvard Hall (1766) stands on the site of a seventeenth-century building of the same name. It burned down one wintry night in 1764, destroying the 5,000-volume college library (then the largest in North America), and the scientific laboratory and apparatus. Old Stoughton College suffered so much damage from occupation by Continental troops during the Revolution that it had to be torn down in 1781. A new Stoughton Hall (1805), Holworthy Hall (1812), and University Hall (1815) form the outline of the original Yard.

Established to provide a learned ministry to the colonies, Harvard only later created graduate programs beginning with medical studies in 1782; law and divinity did not become graduate departments until 1816 and 1817, respectively. Even so, the College did not take on the aspect of a true university until mid-century, when a library building (1841), an observatory (1846), a scientific school (1847), a chemistry laboratory (1857), and a natural history museum (1860) were built.

**The Coming of the Modern University**

Under the presidency of Charles William Eliot (1869–1909) the number and variety of courses multiplied, the lecture system supplanted the older method of recitation, and students were permitted a free choice of courses. However, long before he succeeded Eliot as president of the University, A. Lawrence Lowell came to believe that there was “too much teaching and too little studying” in Harvard College. Accordingly, throughout his presidency (1909–1933), Lowell emphasized scholarship and honors work, eventually introducing the system of “concentration and distribution,” together with general examinations and tutorials, which continues essentially unchanged today.

Early in the twentieth century the professional schools each acquired a new building: Medicine in 1906, Law in 1907, and Business Administration in 1926. The great central library building, named for Harry Elkins Widener, dates from 1915, the present Fogg Museum from 1927, the Mallinckrodt chemical laboratory from 1929. A similar burst of physical expansion marked the concluding years of James Bryant Conant’s presidency (1933–1953) and the entire term of Nathan Marsh Pusey (1953–1971).

**Pusey and Bok: The Growth of the University**

During the Pusey period, government subsidy for science made possible the building and renovating of major facilities in the areas of medicine, public health, and the basic and applied sciences. Fund-raising campaigns improved the faculty salary structure and related benefits, increased student financial aid, and created many new professorships.

Pusey’s successor was Derek Curtis Bok, whose twenty-one-year presidency (1971–1991) was a period of unprecedented growth for the University. At the beginning of Bok’s presidency, a reduction in government assistance and the effect of inflation on operating costs began to take their toll. It was necessary to seek private sources of support in order to achieve the President’s goals. Under Bok’s aegis, a capital campaign was completed.

It included a $350 million effort to improve the College and strengthen the Faculty of Arts and Sciences, the Graduate School of Arts and Sciences, and programs in public service. Crucial to these efforts was the development of policies that encouraged the recruitment and appointment of outstanding women and minority scholars to permanent faculty positions. While reaffirming the principle that every Harvard undergraduate should be broadly educated, the new Core Curriculum emphasized the study of approaches to knowledge in seven areas considered indispensable to the contemporary student: Foreign Cultures, Historical Study, Literature and Arts, Moral Reasoning, Quantitative Reasoning, Science, and Social Analysis.

**Harvard into the Twenty-First Century: Rudenstine, Summers, Faust, and Bacow**

Neil L. Rudenstine, Harvard’s 26th president, took office in 1991. He concluded his tenure as president in June 2001, after a decade of service. The Rudenstine years were marked by efforts to strengthen collaboration among the different parts of Harvard, to advance an array of programmatic initiatives across the arts and sciences and the professional schools, to expand Harvard’s international agenda, to adapt the University to the new information age, and to keep Harvard’s doors open to outstanding students from across the economic spectrum. Rudenstine is credited, among other things, with guiding the creation of the new Radcliffe Institute for Advanced Study, born of the merger of Radcliffe College with Harvard; with initiating steps toward an eventual new Harvard campus in the Allston section of Boston; with vigorous advocacy of the educational importance of student diversity; and with leading an unprecedented University-wide campaign that raised a record $2.6 billion for student financial aid.

In July 2001, Lawrence H. Summers, (PhD 1982), became Harvard’s 27th president. The former Nathaniel Ropes Professor of Political Economy at Harvard, he also served in a number of prominent public policy roles, including Vice President of Development Economics and Chief Economist of the World Bank, and Secretary of the U.S. Treasury. As Harvard’s president, Summers spurred attention to renewing the undergraduate experience, guided the launch of innovative interdisciplinary initiatives in the sciences and beyond, and strongly expanded Harvard’s international agenda. Under his leadership, the University reached out to many more undergraduates from low-income families and also strengthened financial aid for graduate and professional students pursuing careers in public service. Harvard also achieved dramatic faculty growth, undertook major investments in an array of new facilities, and took the first steps toward building Harvard’s extended campus in Allston during Summers’ presidency. Summers stepped down in June 2006, and became a University Professor. In July 2006, Derek Bok returned to the office as interim president while a search for a new Harvard president was launched. As interim president, Bok devoted himself to bringing to a successful conclusion an ongoing review of

undergraduate education, planning for the development of University land in Allston, and identifying organizational changes necessary to promote interdisciplinary research, such as reform of the academic calendar.

Drew Gilpin Faust took office as Harvard's 28th president on July 1, 2007. Faust, a historian of the Civil War and the American South, is also the Lincoln Professor of History in Harvard's Faculty of Arts and Sciences. Previously she had served as founding dean of the Radcliffe Institute for Advanced Study, a post she took up on January 1, 2001. As the first dean of the Radcliffe Institute, Faust guided the transformation of Radcliffe from a college into a wide-ranging institute for advanced study. Under her leadership, Radcliffe emerged as one of the nation's foremost centers of scholarly and creative enterprise, distinctive for its multidisciplinary focus and the exploration of new knowledge at the crossroads of traditional fields. Before coming to Radcliffe, Faust was Annenberg Professor of History and director of the Women's Studies Program at the University of Pennsylvania, where she served for 25 years on the faculty.

Lawrence S. Bacow took office on July 1, 2018 and is the 29th President of Harvard University.

One of higher education's most widely experienced leaders, President Bacow is committed to supporting scholarship and research, encouraging civic engagement, and expanding opportunity for all. From 2001 to 2011, he was president of Tufts University, where he fostered collaboration and advanced the university's commitment to excellence in teaching, research, and public service. Prior to Tufts, he spent 24 years on the faculty of the Massachusetts Institute of Technology, where he held the Lee and Geraldine Martin Professorship of Environmental Studies and served as Chair of the Faculty (1995-97) and as Chancellor (1998-2001).

An expert on non-adjudicatory approaches to the resolution of environmental disputes, President Bacow received an S.B. in economics from MIT, a J.D. from Harvard Law School, and an M.P.P. and Ph.D. in public policy from the Harvard Kennedy School of Government. Prior to his election to the Harvard presidency in February 2018, he served as a member of the Harvard Corporation (2011-18), the Hauser Leader-in-Residence at the Harvard Kennedy School of Government (2014-18), and a President-in-Residence at the Harvard Graduate School of Education (2011-14).

President Bacow was raised in Pontiac, Michigan, by parents who were both immigrants. He and his wife, Adele Fleet Bacow, were married in 1975 and have two adult sons.

**Radcliffe and Harvard**

Radcliffe College had been founded in 1879 "to furnish instruction and the opportunities of collegiate life to women and to promote their higher education." From its inception, one aspect of Radcliffe's commitment to that goal was to provide women access to the Harvard faculty. From 1879 to 1943, Harvard professors repeated to Radcliffe students the lectures they gave at Harvard. In 1943, the instruction of Radcliffe undergraduates became a formal responsibility of the Harvard Faculty of Arts and Sciences. Three years later all courses were made coeducational, except for some of the large freshman courses, which remained segregated for several more years. Then, in the 1960s the pace of integration quickened. Harvard degrees were awarded to Radcliffe students for the first time in 1963, and in the same year women were admitted to the Graduate School of Arts and Sciences. In 1967 the doors of Lamont Library were opened to women. However, it remained for Derek Bok to make the most dramatic initial steps in the process of integration. In 1975 the two Colleges combined their separate admissions offices and an equal-access admissions policy was adopted. In 1977, Harvard and Radcliffe agreed that Radcliffe would delegate to Harvard all responsibility for undergraduate education of women and the management of undergraduate affairs. After the 1977 Agreement, Radcliffe College devoted increasing attention to cultivation and development of research and postgraduate programs, having turned over almost all responsibility for collegiate affairs to Harvard College. A unified House system brought coeducational living into being, using both Radcliffe's Houses in the Radcliffe Quadrangle and the River Houses of Harvard.

On September 14, 1999, the governing bodies of Harvard and Radcliffe completed the merger of the two institutions. Harvard College assumed full responsibility for the education of undergraduate women. At that point Harvard College created the Ann Radcliffe Trust, "a set of programs for Harvard undergraduates that seeks to raise the awareness of women and women's issues at Harvard." In fall 2006 the Harvard College Women's Center opened in Harvard Yard, providing a space both for meetings and for relaxation. The Center absorbs the Ann Radcliffe Trust and continues the work of developing and

implementing a comprehensive outreach and support structure for undergraduate women individually, and for their student organizations.

As a result of the merger, the Radcliffe Institute for Advanced Study was established. “Building on Radcliffe’s current programs,” to quote its mission statement, “and its continuing commitment to the study of women, gender and society, the Radcliffe Institute is an interdisciplinary center where leading scholars can promote learning and scholarship across a broad array of academic and professional fields within the setting of a major university. The institute offers non-degree instruction and executive education programs.” It was the intention to create a center for advanced study of the first rank.

**Harvard Today**

Today Harvard comprises a Faculty of Arts and Sciences, including Harvard College, the Graduate School of Arts and Sciences, the Division of Continuing Education, and the School of Engineering and Applied Sciences. There are eight other faculties: Business Administration, Design, Divinity, Education, Government, Law, Medicine (including Dental Medicine), and Public Health; and the Radcliffe Institute for Advanced Study. Its total campus area occupies about 500 acres, concentrated in Cambridge and Boston. Its faculty and staff number about 20,000 individuals, many of them part-time. The University has a regular enrollment of 17,000 plus some 30,000 other students who take credit courses, non-credit courses, and seminars in University Extension, the Summer School, and other programs in continuing education.

# Academic Calendar

Academic Year 2020-2021

Future Academic Calendars

Examination Scheduling

Exam and Course Deadline Groups and Dates

# Academic Year 2020-2021

The Harvard College 2020-2021 academic calendar can be found here on the FAS Registrar's website.

# Late Fees

Fees for late housing cancellation, late check-in, late course registration, and change-of-course petitions are waived only when the University is responsible for the difficulty or when the situation involves a serious illness of the student (usually including hospitalization) or a death in the student’s immediate family.

# Check-In

Any student in the Faculty of Arts and Sciences who fails to complete the check-in process on my.harvard by the deadline will be charged $50. Additionally, the Dean of Harvard College may place a student on involuntary leave of absence for failing to complete the check-in process and register for courses as required at the beginning of the term. (See also: The Check-In Process and Course Registration.)

# Course Registration

A student who fails to register for courses on or before the deadline will incur a late fee of $40 per week. Failure to complete the course registration process may subject the student to disciplinary action and an involuntary leave of absence.

After the fifth Monday of the term, the Administrative Board's approval is also required. No courses added after the fifth Monday may be taken Pass/Fail.

## Course Changes

Any student adding/dropping/withdrawing from a course will be charged according to the following schedule. Students are not charged for any drop/add submissions completed by the third Monday of the term. All students pay a $10 fee for drop/add submissions between the third Monday and the fifth Monday of the term. After the fifth Monday, drop/add petitions may no longer be filed. Withdrawal submissions filed between the fifth Monday and the eleventh Monday also cost $10. A notation of WD will be permanently recorded on the student's transcript. Withdrawal petitions may not be filed after the eleventh Monday of the term. There is no charge for changing the grade status of a course.

Changes to a student's schedule after the deadlines require approval by the Administrative Board and will incur an additional fee of $25 plus the $10 change-of-course fee.

## Plan of Study

An overdue Plan of Study will make the student liable for a late fee of $25 for the first week, $50 thereafter, and for disciplinary action, including requirement to withdraw.

## Future Academic Calendars

Academic calendars for upcoming years are available on the Registrar's website. Please note that they are subject to change.

## Examination Scheduling

Exam dates are posted on the Registrar's website within three weeks of the start of the term. Exam dates and course deadlines ordinarily correspond to class meeting times and change if the meeting time changes. Occasionally, the Registrar will assign an Exam/Final Deadline Group that does not correspond to the meeting time of the course.

Many factors must be considered when scheduling eighteen Exam/Final Deadline Groups in a nine-day Examination Period, including student conflicts, room availability, and personnel resources. Unfortunately, the Registrar is unable to accommodate individual requests to assign alternative Exam/Final Deadline Groups to courses.

Since the days and hours for courses are subject to change, official dates and times for examinations are published on the Final Examination Schedule that is posted online approximately three weeks into the term. This posted schedule is subject to change.

In selecting courses, students should understand that two Exam/Final Deadline Groups will be scheduled on the same day. Students who want to avoid having two exams on one day should consult the Final Exam Schedule when enrolling in courses.

Students who have two exams scheduled for the same time will be reassigned an exam time other than the one posted for one of the courses. Students will be informed of this alternate exam time at least one week prior to the first day of exams. If students have questions regarding an exam conflict they should contact the Registrar's Office at exams@fas.harvard.edu.

## Exam/Final Deadline Groups and Dates

The table below shows the dates of final examinations associated with each of the Exam/Final Deadline Groups. For most courses, an Exam/Final Deadline Group is posted on my.harvard within the course description. Exam/Final Deadline Groups correspond to course meeting days and times and ordinarily change if the course meeting days and times change. Occasionally, the Office of the Registrar may need to assign an Exam/Final Deadline Group that does not correspond to the meeting days and times of a course. All students are therefore advised that they should not make any travel plans until the official Final Examination Schedule is published. Students are expected to be in residence for the duration of the Final Examination Period. For the fall term, the Final Examination Period is Thursday, December 10 through Saturday, December 19. For the spring term, the Final Examination Period is Thursday, May 6 through Saturday, May 15.

| Exam and Course Deadline Group | Fall Final/Midyear Examination | Spring Final Examination |
|---|---|---|
| 1 | Tuesday, Dec. 10 | Thursday, May 6 |
| 2 | Tuesday, Dec. 10 | Thursday, May 6 |
| 3 | Wednesday, Dec. 11 | Friday, May 7 |
| 4 | Wednesday, Dec. 11 | Friday, May 7 |
| 5 | Thursday, Dec. 12 | Saturday, May 8 |
| 6 | Thursday, Dec. 12 | Saturday, May 8 |
| 7 | Friday, Dec. 13 | Monday, May 10 |
| 8 | Friday, Dec. 13 | Monday, May 10 |
| 9 | Saturday, Dec. 14 | Tuesday, May 11 |
| 10 | Saturday, Dec. 14 | Tuesday, May 11 |
| 11 | Monday, Dec. 16 | Wednesday, May 12 |
| 12 | Monday, Dec. 16 | Wednesday, May 12 |
| 13 | Tuesday, Dec. 17 | Thursday, May 13 |

| | | |
|---|---|---|
| 14 | Tuesday, Dec. 17 | Thursday, May 13 |
| 15 | Wednesday, Dec. 18 | Friday, May 14 |
| 16 | Wednesday, Dec. 18 | Friday, May 14 |
| 17 | Thursday, Dec. 19 | Saturday, May 15 |
| 18 | Thursday, Dec. 19 | Saturday, May 15 |

## Academic Information

The Bachelor of Arts and Bachelor of Science Degrees

College Requirements

The Core Curriculum Requirement

The Concentration Requirement

Accessible Education

Other Academic Opportunities

Check-In and Course Registration

Grades and Honors

Academic Performance

Attendance, Absences, Reading Period, Examinations, and Extensions

Leaves of Absence

Education Records

## The Bachelor of Arts and Bachelor of Science Degrees

Requirements for the Degree

Credit Requirements

Residency Requirement

**Requirements for the Degree**

The Faculty of Arts and Sciences offers undergraduates a wide range of courses to satisfy individual objectives and interests. In defining the requirements for the Bachelor of Arts and Bachelor of Science degrees, the Faculty has sought to accommodate those objectives and interests and, at the same time, to establish a framework for study in the College that ensures involvement with important areas of general knowledge (the General Education requirements) and in-depth study of one specific area (the concentration requirement). In addition, students must demonstrate competence in certain skills

reflective of the complex demands of modern society (writing, quantitative reasoning with data, and language requirements) and achieve a satisfactory level of performance in their work. Each of these requirements is set forth in detail below. (For the rules concerning the Bachelor of Science degree, see "Engineering Sciences".) Students are responsible for knowing the rules that apply to their candidacy for the AB or SB degree.

Exceptions to the rules may be made only by special vote of the Administrative Board of Harvard College (hereafter referred to as the Administrative Board) or by those administrative officers or committees to which the Faculty, for certain matters, has delegated authority to act on its behalf.

**Credit Requirements**

All candidates for the Bachelor of Arts or the Bachelor of Science degree must pass 128 credits (the equivalent of thirty-two 4 credit courses) and receive letter grades of C– or higher in at least 84 credits of them (at least 96 credits to be eligible for a degree with honors). A “course” is equivalent to 4 credits and normally is the length of a semester; a “course” is equivalent to the “half-course” designation in earlier Handbooks. The only non-letter grade that counts toward the requirement of 84 satisfactory letter-graded credits is Satisfactory (SAT); only one (8 credit) senior tutorial course graded Satisfactory may be so counted. Credits taken either by cross-registration or out of residence for degree credit will not be counted toward the letter-graded credit requirement unless they are applied toward concentration requirements or the requirements for the Undergraduate Teacher Education Program (UTEP).

Forty-eight of the required 84 letter-graded credits should normally have been completed by the end of the sophomore year. Ordinarily, no first-year student or sophomore may take fewer than three letter-graded courses (4 credits per course) in any term. First-year students who wish to complete fewer than 16 credits per term must obtain the approval of their Resident Dean.

Advanced Standing students graduating in six semesters, students studying abroad for two semesters (fall and spring), and sophomore transfer students (32 credits granted) must pass 96 credits at Harvard and receive letter grades of C– or higher in at least 60 of them (at least 72 to be eligible for a degree with honors). Advanced Standing students graduating in seven semesters and students studying abroad for one semester (fall or spring) must pass 112 credits at Harvard and receive letter grades of C– or higher in at least 72 of them (at least 84 to be eligible for a degree with honors). Junior transfer students (64 credits granted) must pass 64 credits at Harvard and receive letter grades of C– or higher in at least 40 of them (at least 48 to be eligible for a degree with honors). All degree recipients must have been degree candidates for at least four regular semesters and have passed at least 64 credits as degree candidates during regular terms (fall or spring semester) in Harvard College. The precise number of letter-graded credits with C– or higher required of transfer students will be subject to evaluation at the time of matriculation at Harvard.

**Residency Requirement**

Students will not ordinarily be recommended for the AB or SB degree without having paid for eight terms of residence. (Any student currently registered in the College is considered here to be “in residence,” regardless of actual domicile.) Exceptions to the residence requirements are made for students who graduate in fewer than eight terms by exercising Advanced Standing or who matriculated with transfer credit. Some students may complete Harvard degree requirements in fewer than eight terms as a result of course work done elsewhere that is approved in advance and counted by Harvard toward degree requirements (see Requirements for the Degree), or as a result of course work done at the Harvard Summer School (see Harvard Summer School), or as a result of having worked at a rate of more than sixteen credits per term.

No student will be recommended for the AB or the SB degree who has not completed a minimum of four regular terms in the College as a candidate for that degree and passed at least sixty- four credits during regular terms in Harvard College.

Students who have not completed the degree requirements within the allotted number of terms (“lost degree" candidates) may complete degree requirements only by enrolling in the Harvard Summer School, by successfully petitioning the Administrative Board for an additional term (see Additional Term), or, if eligible, by enrolling in a program of study approved by the Committee on Education Abroad (see Study Abroad).

# College Requirements

General Education Requirement

Distribution Requirement

Quantitative Reasoning with Data Requirement

Expository Writing Requirement

Language Requirement

# General Education Requirement

The General Education program is the cornerstone of the Harvard College curriculum. Focusing on urgent problems and enduring questions, Gen Ed courses are unusually explicit in connecting the subjects students study to the people they will become and the world beyond the classroom. Transcending disciplinary divisions, these courses demonstrate the value of embedding what students will learn in their concentrations within the broader context of the liberal arts.

Students graduating in May 2020 or later must complete four General Education courses, one from each of the following four General Education categories:

- **Aesthetics & Culture**
  - Aesthetics and Culture courses engage diverse artistic genres and cultural traditions, helping students situate themselves and others as products of and participants in art and culture.
- **Ethics & Civics**
  - Ethics and Civics courses engage with large questions about right and wrong, helping students grapple with the nature of civic virtue and the ethical dimensions of what they say and do.
- **Histories, Societies, Individuals**
  - Histories, Societies, Individuals courses engage questions of identity and social change, helping students understand the histories and traditions that they will encounter in a global context.
- **Science & Technology in Society**
  - Science and Technology in Society courses engage students in the study of scientific innovations and their social contexts, helping students assess the promise and pitfalls of current and future innovations using methods of scientific inquiry.

Three of these courses must be letter-graded. One may be taken Pass/Fail, with the permission of the instructor. However, if that same course is being used to fulfill a concentration or secondary field requirement, there may be limitations on Pass/Fail options. Students should check with their advisers.

There are no constraints regarding the timing of these courses, as long as all are completed by graduation.

General Education requirements will not be reduced for Advanced Standing, Transfer Students, or Term Time Study Abroad.

Only courses approved by the Standing Committee on General Education can be used to fulfill General Education requirements. Students may not petition to have courses count.

Designated Harvard Summer School and Harvard Summer Study Abroad courses may count for General Education. Ordinarily, summer courses count if they are identical to courses that receive General Education credit during the academic year and are taught by the same Harvard faculty members who teach them during the academic year (or by a member of the same department).

For questions, students should contact the General Education Office (617-495-2563, Smith Campus Center Fourth Floor, gened_questions@fas.harvard.edu).

## Distribution Requirement

The distribution requirement exposes students to the diversity of scholarly disciplines at Harvard. All students must complete one departmental (non-Gen Ed) course in each of the three main divisions of the Faculty of Arts and Sciences (FAS) and the Paulson School of Engineering and Applied Sciences (SEAS):

- Arts and Humanities
- Social Sciences
- Science and Engineering and Applied Science.

Courses used to fulfill the distribution requirement may be taken pass/fail, with the permission of the instructor. However, when the same courses are being used to fulfill a concentration or secondary field requirement, there may be limitations on pass/fail options. Students should check with their advisers.

All courses in every division will count toward the distribution requirement except elementary and intermediate-level languages, some graduate courses, courses in Expository Writing, music performance courses, and Freshman and House Seminars.

A course taken to fulfill a Divisional Distribution requirement cannot be counted towards the College's Quantitative Reasoning with Data requirement.

There are no constraints regarding the timing of these courses, as long as all are completed by graduation.

Transfer students may fulfill the distribution requirement with courses taken at their previous undergraduate institution. Courses taken during Term Time or Summer Study Abroad, and courses taken at Harvard Summer School may also count for the distribution requirement.

For questions, students should contact divdist@fas.harvard.edu.

## Quantitative Reasoning with Data Requirement

The Quantitative Reasoning with Data (QRD) requirement introduces students to mathematical, statistical, and computational methods that will enable students to think critically about data as it is employed in fields of inquiry across the Faculty of Arts and Sciences.

Starting in Fall 2019, students in the class of 2023 (and in later classes) must complete one course in Quantitative Reasoning with Data.

Students in the classes of 2020, 2021, and 2022 must fulfill the QRD requirement by completing either one course in Quantitative Reasoning with Data or one course that fulfilled the Empirical and Mathematical Reasoning requirement (to include courses in the departments of Applied Mathematics, Mathematics, Computer Science and Statistics). These students can consult a list of courses previously approved for Empirical and Mathematical Reasoning.

Courses used to fulfill the Quantitative Reasoning with Data requirement may be taken pass/fail, with the permission of the instructor. However, when the same courses are being used to fulfill a concentration or secondary field requirement, there may be limitations on pass/fail options. Students should check with their advisers.

A course taken to fulfill the QRD requirement cannot be counted towards the College's Divisional Distribution requirement.

There are no constraints regarding the timing of this requirement, as long as it is completed by

graduation.

Courses taken at Harvard Summer School may count for the QRD requirement.

For questions, students should contact QRD@fas.harvard.edu.

## Expository Writing Requirement

Degree candidates admitted as first-year students must enroll during their first year of residence in a prescribed course in expository writing offered by the Harvard College Writing Program. A final grade of D– or better in Expository Writing 20 ordinarily fulfills the writing requirement; however, the Director of the Harvard College Writing Program may require particular students to do additional work during the following term in order to satisfy the requirement. Courses taken on a Pass/Fail basis may not be used to fulfill the Harvard College writing requirement. Harvard Summer School courses in expository writing or creative writing may not be used to fulfill the Harvard College writing requirement. Harvard Summer School courses in expository writing may not be used for degree credit.

All transfer students are expected to satisfy the same writing requirement as students admitted as first-year students unless they have demonstrated superior writing ability in the English language before they arrive at Harvard. Transfer students who seek exemption from the writing requirement must provide the Director of the Harvard College Writing Program with a substantial sample of their own written work in the summer before matriculation at Harvard. Such a sample should include at least twenty double-spaced, typewritten pages. Papers submitted to and evaluated by a faculty member at the college the student attended before coming to Harvard constitute an appropriate sample. The Director will evaluate the papers and decide if an exemption should be granted. Transfer students seeking exemption should contact the Harvard College Writing Program at 617-495-2566 or expos@fas.harvard.edu for more information.

Any student who fails to complete the writing requirement during the first year of residence must enroll in an appropriate Expository Writing course during each subsequent term of residence until the requirement is met.

## Language Requirement

Degree candidates must meet a language requirement in a language other than English that is taught at Harvard or for which an appropriate examination can be given. The College affirms that the learning of a language other than English is an essential component of a liberal arts and sciences education and that this learning should allow a student to develop first-hand understanding of linguistic and cultural variety. The language requirement demands rigorous study but does not require a particular format of study or examination. Students should be taught in all forms of a language that are customary in the practice of that language. The requirement can be satisfied in one of the following ways:

- Earning a minimum score of 700 on a College Entrance Examination Board SAT II Test in a language other than English, a score of 5 on a relevant Advanced Placement examination, or a score of 7 on a relevant International Baccalaureate examination;
- Earning a passing score as determined by the department on a placement examination administered by certain language departments;
- Passing with a letter grade one appropriate year-long course (8 credits) or two semester-long courses (4 credits each) in one language at Harvard, or the equivalent as determined by the appropriate language department. These courses may not include foreign literature courses conducted in English;
- Passing with a letter grade in a language course or courses at the appropriate level taken in Harvard programs abroad, as approved by the appropriate language department. Study completed at other institutions may also fulfill the requirement if approved by the appropriate language department whether through examination or on the basis of achieving a minimum grade;
- A student whose high school education was conducted in a language other than English may

satisfy the language requirement with evidence of the official high school transcript.
- A student who claims fluency in a language other than English may satisfy the language requirement through satisfactory completion of an examination in the relevant language, provided that an appropriate examination can be given. If the language is not one that is offered at Harvard, and if a qualified examiner, as determined by the Office of Undergraduate Education, cannot be identified, the student must meet the language requirement with another language.
- No student may take the relevant departmental examination more than once for the purpose of meeting the language requirement.

Details on language placement exams, including the process for registering for these exams and FAQs, can be found on the Placement Exams Information website.

Any student who has not met the language requirement upon entrance ordinarily is required to enroll in and complete with a passing letter grade an appropriate year-long language course (8 credits) or two semester-long language courses (4 credits each) in a single language before the start of the junior year. (An appropriate course is one for which a student qualifies by previous instruction or placement test.) Most introductory courses in all languages taught at Harvard may count towards fulfillment of the language requirement; exceptions are noted in the course listings in my.harvard.

Exceptions to the ordinary means of satisfying the requirement, or to the timing of the requirement, can be granted only by the Administrative Board upon the recommendation of the student's Resident Dean. Students who fail to meet the requirement by the beginning of the junior year, or in the timeframe specified by the Administrative Board, are subject to disciplinary action.

Placement exams in a few languages will be available online to entering students over the summer before the start of the fall term; students looking to place into courses in these languages, or who plan to satisfy the language requirement in these languages, are strongly encouraged to take the exam over the summer before the start of their first year. A student whose score on the online exam indicates sufficient mastery of the language to satisfy the requirement will need to take a brief, proctored follow-up exam before the course registration deadline. Placement exams in these languages, as well as many others, will also be administered to first-year students during the fall Orientation period. Upperclassmen interested in taking a language placement exam should be in touch with the relevant department prior to the start of the term.

Students wishing to fulfill the language requirement in a language for which the College does not provide a standard placement exam will need to consult with the Office of Undergraduate Education by contacting placement-help@fas.harvard.edu as soon as possible upon admission to the College. Students may request to take a special examination in any language in which an appropriate examination can be given by a member of the Faculty familiar with the standards of the language requirement or by a qualified examiner identified by the Office of Undergraduate Education. Special language examinations will be scheduled as quickly as possible, but students should plan to take either a placement examination in another language if possible or a first-year course in another language to maximize their options pending the result of the special examination. Students who plan to fulfill the language requirement by special examination should consult with their Resident Dean prior to registering for courses.

Students who plan to continue language study beyond the requirement level may wish to qualify for a citation in that language (see Citations in Foreign Language.)

## The Core Curriculum Requirement

All students who entered Harvard College prior to September 2009 must meet the requirements of the Core Curriculum in order to graduate, unless they choose to switch to the Program in General Education. Students should consult the General Education Office (gened@fas.harvard.edu, 617-495-2563, Smith Campus Center Fourth Floor) to discuss options for completing Core Curriculum requirements or for switching to General Education requirements.

## The Concentration Requirement

All degree candidates must fulfill the requirements of one of the recognized fields of concentration, an approved joint concentration, or an approved special concentration. A student's concentration is a commitment to a particular discipline, field, or specialization. All concentrations provide students with opportunities for appreciating, assimilating, and making applications of a coherent body of knowledge.

Harvard currently offers fifty fields of concentration, some of which have multiple tracks. Each concentration is overseen by a faculty member serving as the Head Tutor or the Director of Undergraduate Studies. Overviews of each concentration, its specific requirements, and how to obtain more information about the concentration are included in Fields of Concentration and Secondary Fields.

In many concentrations, students may pursue either a basic program or one that makes them eligible for honors in the field. Honors-eligible programs generally differ from basic programs in that they require a senior thesis and/or advanced course work. To be awarded the degree with honors in the field of concentration, the student must complete the honors requirements within the concentration, receive an honors recommendation from the department or committee that supervises the concentration, and meet the College-wide requirements for an honors degree. Students should understand that completing the degree requirements for an honors-eligible program does not guarantee that they will graduate with honors (see "Requirements for Honors Degrees").

Several concentrations may limit enrollment by selecting their concentrators from those students who apply. These concentrations include Environmental Science and Public Policy; History and Literature; Comparative Literature; and Art, Film, and Visual Studies. Each of these programs attempts to select those students whose needs and interests will best be served by its offerings and will admit as many students as its teaching resources allow.

## Choosing a Concentration

The choice of a concentration is an important decision, requiring inquiry and reasoned judgment and some creative research on the part of the student. First-Year student advisers, sophomore advisers, other resident advisers, concentration advisers, and faculty are available to help students make this decision. Fields of Concentration and Secondary Fields lists the names of individuals who can provide specific information about each concentration. Students may also consult the Advising Programs Office website for up-to-date contact information.

Students should plan their concentration program with a representative of the concentration who will approve the Declaration of Concentration and the Plan of Study. This procedure constitutes official admission to the field of concentration. Students ordinarily must fulfill concentration requirements as they were defined in Fields of Concentration and Secondary Fields the year the Plan of Study was approved, although in those situations in which a concentration subsequently changes its requirements, the Head Tutor or Director of Undergraduate Studies may allow students to substitute the new requirements.

Students who entered as first-year students in the fall of 2006 or later must declare a concentration via my.harvard near the end of the fall term of their second year (see "Academic Calendar" for specific deadlines). Students who are out of sequence because of leaves or withdrawals must declare a concentration no later than two weeks before the end of classes of their third term of enrollment. An overdue declaration will make the student liable for a late fee of $25 for the first week, $50 thereafter, and for disciplinary action. Students who are working at a reduced rate should consult the Office of Undergraduate Education to determine the appropriate filing deadline.

As preparation for choosing a concentration, every student is required to have a documented advising conversation with a representative from one or more prospective concentrations near the end of the second term of enrollment. In order to facilitate these conversations, the Advising Programs Office works in conjunction with the concentrations to hold advising conversation events. These advising conversations do not indicate any binding decision on the part of the student. Concentrations choose their own criteria for defining these advising conversations, so the form and context may vary from program to program. Please consult the Advising Programs Office for more information at advising@fas.harvard.edu.

## Changing Concentrations

After declaring a concentration, students may change concentrations or add or delete a field that forms part of a joint concentration by using the Declaration of Concentration tool via my.harvard. Because there are implications with respect to a student's overall academic program when changing the field of concentration, students should consult with and have the petition approved by both the Head Tutor or Director of Undergraduate Studies of the proposed new concentration and their Resident Dean before formally filing a change of concentration.

A change of field on the student record and transcript is not complete until the petition has been approved by the department and the change is reflected on my.harvard.

After the deadline for degree applications in a student's final term in the College, a change of concentration will be granted only with the approval of the Administrative Board. Ordinarily, approval will be granted to facilitate a student's completion of degree requirements, but not to enhance the level of honors awarded.

## Joint Concentrations

Every year, some students find that their interests are best accommodated by pursuing a joint concentration that combines two fields. The two fields combined in a joint concentration must each be an undergraduate concentration offered in its own right. A joint concentration is meant to integrate the two fields into a coherent plan of study and ordinarily culminates in an interdisciplinary thesis written while enrolled in the thesis tutorial of one concentration only. Some concentrations do not participate in joint concentration programs. Students should consult with the Head Tutor or Director of Undergraduate Study in the relevant fields for more information.

For students who do not wish to integrate the work of two separate fields into one coherent program, but wish still to pursue a second disciplinary area, a secondary field option may be more appropriate (see Fields of Concentration and Secondary Fields).

Students who wish to combine two fields in a joint concentration must declare joint concentrations using the Declaration of Concentration tool via my.harvard. One of the concentrations is designated the primary concentration. To grant approval, both of the participating concentrations must be satisfied with the coherence and merit of the student's plan and be prepared to supervise the program in detail. Nevertheless, students who undertake joint concentrations often find that they themselves must take some initiative in ensuring communication between the advisers of the two fields and in keeping these advisers apprised of their progress and their needs. Any student combining fields who wishes to change or eliminate one of the fields must submit a Change of Field of Concentration using the Declaration of Concentration tool via my.harvard by the degree application deadline in the student's final term at the College.

## Special Concentrations

Each year there are a few students whose particular objectives require that they pursue a program of their own design. Under the guidance of a Resident Dean and faculty advisers, and with the cooperation of the appropriate departments, these students may propose concentration programs to the Faculty Standing Committee on Degrees in Special Concentrations (see Special Concentrations in Fields of Concentration). In making its decisions, the committee looks for coherence in the program as well as an appropriate balance of breadth and depth, the student's ability to thrive outside the standard concentration structures, and the availability of appropriate academic resources. Students often find it useful to enter such programs in the junior year after spending part of the sophomore year in one of the established concentrations.

Students interested in pursuing a Special Concentration should consult with the Director of

Undergraduate Studies for Special Concentrations, who can provide advice about constructing a plan of study and about the application process. The committee meets to consider applications three times per year. Those students whose applications are accepted must submit a Change of Field of Concentration using the Declaration of Concentration tool via my.harvard.

## Tutorial

Each field of concentration has jurisdiction, within FAS guidelines, over its own tutorial program. These programs are outlined under the individual requirements for each field in Fields of Concentration and Secondary Fields. Except for those tutorial courses graded SAT/UNS (see Non-Letter Grades for more information), letter grades ordinarily are reported for tutorials given for credit. A field of concentration may bar any student from the tutorial program because of unsatisfactory work.

Ordinarily, the work in a senior tutorial centers on the writing of a thesis. A student who does not complete the thesis but nevertheless wishes to receive credit for the tutorial course may be required by the concentration to submit a paper or other substantial piece of work before any credit can be awarded. Students are advised to learn in advance whether their concentration has such a requirement.

## General Examinations

Some concentrations require that students pass a General Examination before being recommended for the degree or being recommended for the degree with honors in the field. These examinations are often designed to test a student's understanding of the entire field of concentration rather than detailed knowledge of the subject matter of such courses as have been taken in that field. Through their courses, independent reading, or any other effective means, students are expected to have attained a grasp of the intellectual approaches underpinning their field of concentration and to be able to apply that thinking. No student concentrating in a field where General Examinations are required is eligible for the degree, whatever the student's record in courses may be, until the student has passed this examination to the satisfaction of the concentration.

Students in concentrations with General Examinations should consult with the concentration's tutorial office about the scheduling of these examinations. In some cases, General Examinations are scheduled for the spring term only. As a result, students who will complete all other academic requirements (including the thesis) in the fall term and do not plan to enroll for the spring term may need to speak with their concentration, their Resident Dean and the Registrar in order to sit for the General Examination.

## Accessible Education

The Accessible Education Office (AEO) serves as the central campus resource for students with visible and invisible disabilities to identify barriers and implement plans for access at Harvard College, the Graduate School of Arts and Sciences (GSAS), and the School of Engineering and Applied Sciences (SEAS).

AEO staff are available for both general consultations and more structured Access Meetings to determine formal accommodation plans, and some students may simply want to discuss difficult situations and not request any accommodations at all. The accommodation process for students with disabilities in University-sponsored programs and activities is a collaborative one, with students expected to take the lead in self-disclosing to AEO in a timely manner, providing requested documentation that will assist in determining reasonable accommodations.

Students are encouraged to make initial contact with AEO upon admission or as soon as mental or physical health-related concerns arise. To begin the registration process, students are asked to fill out a form on the AEO website under the new or returning student section. A staff member will then reach out to schedule a meeting to discuss together the impact of potentially inaccessible environments and course elements that may require academic adjustments or the use of auxiliary aids. Students may want

to learn more about permanent or temporary academic or housing accommodations, accessible transportation, assistive technology, and other academic adjustments by reviewing the website and contacting AEO directly. For a more comprehensive description of AEO services, policies and documentation requirements, visit the AEO website, contact AEO at aeo@fas.harvard.edu, or 617-496-8707. Students who are dissatisfied with their accommodations may wish to exercise their right to submit a grievance and may refer to the AEO website for details about the grievance procedure.

# Other Academic Opportunities

Secondary Fields

Study Abroad

- Options for Study Abroad
- Procedures for Earning Degree Credit for Study Abroad

Citations in a Foreign Language

Advanced Standing

- Advanced Placement
- Advanced Standing
- Foreign Credentials
- Concurrent Master's Degree

Study at Other Boston-Area Institutions

Teacher Education Programs

- The Undergraduate Teacher Education Program (UTEP)
- Harvard Teacher Fellows Program

Research & Scholarly Integrity

- Human Subjects Research
- Research and Teaching Involving Animal Subjects

**Secondary Fields**

Secondary fields provide the opportunity for focused study (four to six courses) outside of the primary area of concentration, but they are entirely optional and are not required for graduation. A secondary field may complement the primary area of study in the concentration, or it may be entirely separate. Unlike a joint concentration, no integrative work between the secondary field and the primary concentration is required. The successful completion of a secondary field will appear on a student's transcript. No student may receive credit for more than one secondary field.

While secondary fields provide new opportunities for Harvard College students, they also come at a cost. Students who pursue a secondary field will have fewer free electives and may have to give up some advanced work or research opportunities in the concentration. Interested students should discuss the possibilities of work in a secondary field with the relevant adviser in the sponsoring program. They are also encouraged to discuss their plans with the Head Tutor or Director of Undergraduate Studies in their own concentration, with their Resident Dean, or with other academic advisers before embarking on a secondary field program.

Each secondary field program has its own set of requirements, and some programs offer multiple options for a secondary field. A few rules, however, apply to all programs: only one course (4 credits) may count simultaneously towards a secondary field and the concentration; courses taken through cross-registration (if allowed by the secondary field program) will not count towards the College grade point average; and students must adhere to the guidelines and procedures for obtaining credit for study abroad in order to count such courses for a secondary field.

No student may sign up for a secondary field before declaring a concentration. Students are responsible for notifying secondary fields of their interest in the program, for tracking their requirements, and for submitting a completed Secondary Field request via my.harvard no later than the deadline published in this Handbook. See Secondary Fields for a list of programs and their requirements.

**Study Abroad**

Harvard views study abroad as an invaluable part of every student's undergraduate education, through encouraging students to explore the possibilities of earning degree credit by studying in another country. Details about term-time study abroad may be found on the Office of International Education (OIE) website.

**Options for Study Abroad**

Rising sophomores, juniors and seniors may study abroad through direct enrollment in a foreign university, in programs sponsored by U.S. universities, or in programs organized through private study abroad organizations. The OIE maintains a list of approved programs, which is reviewed and updated on a regular basis. If a student finds a program that is not on the approved list, the student must follow the formal petition process for approval.

**Getting Started**

It is important to begin the study abroad planning process early: first-year students are encouraged to begin thinking about how to incorporate this important part of their Harvard experience into their studies. A student should seek assistance from the Office of International Education as well as their concentration Head Tutor, Director of Undergraduate Studies, and their Resident Dean for more specific information.

**Applying to Study Abroad**

Each application to study abroad is a two-part application process. Students must apply directly to the foreign school or study abroad program for admission, and to the OIE for transfer credit.

Online application instructions and materials are available on the OIE website. The deadlines for submitting applications are as follows:

- For Fall Term study: March 1
- For Spring Term study: October 1
- For Summer study: Summer Funding, early February;
  General, April 1

Students should carefully monitor the OIE website for updated or changed information.

To be approved for study abroad, a student must be in good academic and disciplinary standing during the term immediately preceding the proposed period of study. Unless granted permission by the Administrative Board in advance, a student cannot be granted degree credit for course work that begins when the student is on probation for any reason.

OIE suggests that students consult the OIE website for detailed guidance on the process for obtaining credit for study abroad, and for links to various electronic resources.

The Harvard College Policy on Undergraduate Travel Abroad clarifies specifics regarding credit and sponsorship for undergraduates wishing to travel internationally. Students can find this policy as well as pre-departure health and safety requirements on the Harvard Global Support Services website.

Students eligible for financial aid must submit a Financial Aid Supplement to the Griffin Financial Aid Office, and consult their designated financial aid officer for more detailed information.

All students earning credit abroad during the academic year will be assessed the student services fee; students will also automatically be billed for health insurance, which may be waived by the deadline with proof of comparable coverage.

Students abroad will maintain their Harvard University Identification Number (HUID) and Personal

Identification Number (PIN), and will retain access to Harvard libraries and services.

Students may consult the Office of Career Services, and the Funding Sources Database for more information about summer funding opportunities.

**Earning Degree Credit for Study Abroad**

Students participating in term-time for-credit study abroad, will reduce by one the number of terms for which they may register at Harvard College.

It is expected that students who study abroad for a semester or academic year will take a full-course-load, as determined and approved by the OIE, and consistent with the College's policies for students studying on campus.

Credits earned abroad are considered transfer credit, for which up to a full year of credit may be earned. No more than 16 credits may be earned per term for term-time study abroad, and no more than 8 credits may be earned per summer for summer study abroad. A maximum total of 32 transfer credits may be earned from studying abroad. Credit earned abroad may transfer in as concentration and/or elective credit and may also contribute to a secondary field or language citation. Additionally, students may take courses to satisfy the Harvard College departmental distribution requirement. Specific information about these options is provided through the Office of Undergraduate Education or by emailing divdist@fas.harvard.edu

Students planning to study abroad in non-English speaking countries are encouraged to complete at least one year of study in the host country's language before studying abroad. Additionally, students are expected to take either a language instruction course or a course taught entirely in a language of the host country.

Harvard does not ordinarily grant credit for study out of residence at other U.S. institutions, except in rare cases when such study is judged to offer a "special opportunity" unavailable to the student at Harvard. Information on the process for petitioning for credit for study out of residence within the U.S. can be obtained from the student's Resident Dean; if the student's petition is approved by the Administrative Board, the OIE will be notified by the appropriate Dean and will instruct the student on how to apply for transfer credit.

**Citations in a Foreign Language**

Advanced training in a foreign language is a valuable component of a liberal arts education; it allows students to employ another language in cultural exchange, research, and work. To foster such training, many of the "language and literature" and "language and civilization" departments offer programs in which undergraduates may earn a citation in a modern or ancient language. Those languages in which citations are offered and the specific requirements for each are listed below. The award of a foreign language citation will be noted on the transcript at the time degrees are voted, and will be included in the commencement program. Students will also receive printed citations along with their diplomas.

Each language citation program consists of four courses (4 credits per course or equivalent) of language instruction beyond the first-year level and/or courses taught primarily in the foreign language. At least two of these courses must be at the third-year level or beyond. Appropriate courses taken in approved programs of study out of residence for which the student receives Harvard degree credit may be counted toward a citation. Courses that satisfy the requirements for a citation may also be counted toward the distribution requirement, Secondary Field, and/or concentration requirements, as appropriate.

Students must complete all courses to count toward the citation with letter grades of B– or better. Regardless of the level at which a student enters a language program at Harvard, all citations require the completion of four courses (4 credits per course or equivalent) taken at Harvard or counted for Harvard degree credit. Language courses that meet these criteria but are bracketed on the transcript may be counted toward a language citation. Some programs require that courses be taken in a particular sequence; students should consult the relevant language advisers for more information.

Students who plan to satisfy the requirements for a foreign language citation must complete a Foreign Language Citation Study Plan with the Head Tutor or Director of Undergraduate Studies of the relevant department and file this form with the Registrar no later than the deadline for degree applications in their

final term in the College. Students are encouraged to file their intentions to satisfy the requirements for a foreign language citation as early as the declaration of a concentration so that they may benefit from advising by the department that will provide the recognition. Students will benefit from planning ahead and taking courses in consecutive terms, so as not to lose ground between language courses; this is especially important at the early stages of language study. Students planning their courses around study undertaken while abroad must consult with relevant advisers and obtain pre-approval of all courses they hope to count towards the citation, as such courses must be taken for Harvard degree credit. Those students who later decide not to complete the requirements for a citation in a foreign language are asked to complete a new Plan of Study indicating this fact in order to inform the relevant department and the Registrar.

Concentrators, including joint concentrators, in African and African American Studies, the Classics, East Asian Studies, Germanic Languages and Literatures, Near Eastern Languages and Civilizations, Romance Languages and Literatures, Slavic Languages and Literatures, or South Asian Studies, whose concentration work is built on a particular language or set of languages, are not also eligible for citations in those languages.

**American Sign Language (ASL)**

A citation in ASL requires four courses: Ling 73c, Ling 73d, Ling 90a, and Ling 90b. Language courses at or above this level of ASL taken out of residence for Harvard degree credit may be substituted for these courses only after assessment via consultation with the ASL Language Coordinator.

**African Languages (See Gikuyu, Igbo, Swahili, Twi, Yoruba, Zulu)**

For all other African languages, please consult the Director of the African Language Program.

**Classical Arabic**

Four of the following courses: Arabic Ba, 130a, 130b, 140, 141, 160r, 240r, 245r, 248r.

Other courses taught primarily in Arabic or courses taken out of residence for Harvard degree credit may be substituted for the above courses with the permission of the Director of Undergraduate Studies for the Near Eastern Languages and Civilizations concentration.

**Modern Standard Arabic**

Four of the following courses, including at least two from the third-year or beyond list:

Second-year level: Arabic 110, Bb.

Third-year or beyond: Arabic 131a, 131b, 241a, 241b.

Other courses taught primarily in Arabic or courses taken out of residence for Harvard degree credit may be substituted for the above courses with the permission of the Director of Undergraduate Studies for the Near Eastern Languages and Civilizations concentration.

**Bosnian, Croatian, and Serbian (BCS)**

Four courses beyond the Elementary level (beyond the A-level courses BCS Aa-Ab). Typically the citation consists of two semesters of Intermediate BCS (BCS Ba-Bb) and two semesters of Advanced BCS (BCS Cr).

Courses taken out of residence (language study abroad) for Harvard degree credit or Slavic 91r (if conducted in BCS) may be substituted for these courses with the permission of the Director of the Slavic Language Program or the Director of Undergraduate Studies for the Slavic Languages and Literatures concentration.

**Catalan**

Consult the Director of Language Programs in Romance Languages and Literatures for information on a citation in Catalan.

**Chinese**

Four courses beyond the first-year level. Choose courses from the following, of which at least two must be at the third-year level or beyond:

Second-year level: Chinese 120a, 120b, 123xb.

Third-year level or beyond: Chinese 130a, 130b, 130xa, 130xb, 140a, 140b, 140xa, 140xb, 150a, 150b, 163, 166r, 168r, 187.

Chinese Ba, Bb and Bx do not count for a language citation.

Other courses taught primarily in Mandarin Chinese or language courses taken out of residence for Harvard degree credit may be substituted for the above courses only after assessment via a Chinese placement test and with the permission of the East Asian Language Coordinator (eal@fas.harvard.edu).

Students who plan to satisfy the requirements for a foreign language citation in Chinese must complete a Foreign Language Citation Study Plan with the Language Program Coordinator in EALC (5 Bryant St., Room 205, eal@fas.harvard.edu).

**Literary Chinese**

Chinese 106a, 106b, 107a, and 107b.

More advanced courses taken out of residence for Harvard degree credit may be substituted for these courses with the permission of the East Asian Language Coordinator (eal@fas.harvard.edu).

Students who plan to satisfy the requirements for a foreign language citation in Literary Chinese must complete a Foreign Language Citation Study Plan with the Language Program Coordinator in EALC (5 Bryant St., Room 205, eal@fas.harvard.edu).

**Czech**

Four courses beyond the Elementary level (beyond the A-level courses Czech Aa-Ab). Typically the citation consists of two semesters of Intermediate Czech (Czech Ba-Bb) and two semesters of Advanced Czech (Czech Cr).

Courses taken out of residence (language study abroad) for Harvard degree credit or Slavic 91r (if conducted in Czech) may be substituted for these courses with the permission of the Director of the Slavic Language Program or the Director of Undergraduate Studies for the Slavic Languages and Literatures concentration.

**Danish**

Two courses beyond beginning Danish (Scandinavian 90r.a-c) and two further courses conducted in Danish. These may consist of any tutorial in Danish, Supervised Reading and Research conducted on Danish (Scandinavian 91r), or courses taken out of residence for Harvard degree credit and approved by the Director of Undergraduate Studies in Scandinavian.

**Finnish**

Two courses beyond beginning Finnish (Scandinavian 90r.a-c) and two further courses conducted in Finnish. These may consist of any tutorial in Finnish, Supervised Reading and Research conducted on Finnish (Scandinavian 91r), or courses taken out of residence for Harvard degree credit and approved by the Director of Undergraduate Studies in Scandinavian.

**French**

Four of the following courses: French 20, 30, 40, 50, and/or any French course at levels 60 or 79, 80, 100, or 200 conducted in French. Note: courses 20-50 must be taken in numerical order; courses 60-200 may be taken in any order.

Other courses taught primarily in French or a maximum of two courses taken out of residence and approved for Harvard degree credit may be substituted for the above courses with the permission of the undergraduate adviser in French or the Director of Language Programs for RLL.

Students who plan to satisfy the requirements for a foreign language citation in French must complete a Foreign Language Citation Study Plan by fall of their senior year and submit it to the office of Language Programs in Romance Languages and Literatures (Boylston Hall 436, 617-495-2524).

**German**

Four of the following courses: German 20a, 20b, any 60-level course, 101, 102, or any 100-level or 200-level course conducted in German. German 20ab earns 8 credits.

Other courses taught primarily in German or courses taken out of residence for Harvard degree credit may be substituted for the above courses with the permission of the Director of Undergraduate Studies in German.

**Gikuyu**

The equivalent of four half courses in Gikuyu above the introductory level, the courses include selected from among the following: BA, Gikuyu BB, Gikuyu 101ar, and Gikuyu 101br.

Other advanced courses in Gikuyu taken out of residence for Harvard degree credit or AAAS 91r (if conducted in Gikuyu) may be substituted for these courses with permission of the Director of the Language Program for the Department of African and African American Studies. In the case of summer study, the course must last six weeks or consist of at least 50 class hours; in addition, students must submit some graded written work done for the course.

**Greek**

Four courses chosen from the following: Greek 2x, 3, H, K, or any 10-level or 100-level Greek course, including those in Byzantine Greek. At least two of the courses must be 100-level, Greek H, or Greek K.

Other advanced courses or courses taken out of residence for Harvard degree credit may be substituted for one or more of the above with the permission of the Preceptor in Ancient Greek and Classical Latin, Dr. Ivy Livingston (livings@fas.harvard.edu).

**Modern Greek**

Four courses (or equivalent) chosen from the following: Modern Greek Ba, Bb, 10, 100, or any other 100-level course in which the reading is done in Modern Greek. Two of these courses must be at the 100-level.

Other advanced courses or courses taken out of residence for Harvard degree credit may be substituted for one or more of the above with the permission of the Preceptor in Modern Greek, Dr. Calliope Dourou (dourou@fas.harvard.edu).

**Classical Hebrew**

Four of the following courses: Classical Hebrew 120a, 120b, 130ar, 130br; Hebrew 150a, 150b, 153, 165, 168, 171, 174, 176.

More advanced courses or courses taken out of residence for Harvard degree credit may be substituted for these courses with the permission of the Director of Undergraduate Studies for the Near Eastern Languages and Civilizations concentration.

**Modern Hebrew**

Four of the following courses: Modern Hebrew 120a, 120b, 130r, 131r, or Near Eastern Civilizations 91r if focused on contemporary Israeli literature and culture and conducted in modern Hebrew at the third-year level or beyond.

Courses taken out of residence for Harvard degree credit may be substituted for two of these four courses with the permission of the Director of Undergraduate Studies for the Near Eastern Languages and Civilizations concentration.

**Hindi-Urdu**

The equivalent of four terms selected from among the following: Hindi-Urdu 102 (a full course), 103a, 103b, 104, 105r, 106.

Courses taken out of residence for Harvard degree credit or other advanced courses may be substituted with the permission of the Director of Undergraduate Studies for South Asian Studies

**Icelandic**

Two courses beyond beginning Icelandic (Scandinavian 90r.a-c) and two further courses conducted in Icelandic. These may consist of any tutorial in Icelandic, Supervised Reading and Research conducted on Icelandic (Scandinavian 91r), or courses taken out of residence for Harvard degree credit and approved by the Director of Undergraduate Studies in Scandinavian.

**Igbo**

The equivalent of four half courses in Igbo above the introductory level, the courses include the following: Igbo BA, Igbo BB, Igbo 101ar, and Igbo 101br.

Other advanced Igbo courses taken out of residence for Harvard degree credit or AAAS 91r (if conducted in Igbo) may be substituted for these courses with permission of the Director of the Language Program for the Department of African and African American Studies. In the case of summer study, the course must last six weeks or consist of at least 50 class hours; in addition, students must submit some graded written work done for the course.

**Italian**

Four of the following courses: Italian 20, 30, 40, 50, and/or any Italian course at levels 60, 70, 80, 100, or 200 conducted in Italian. (Note: courses 20-50 must be taken in numerical order; courses 60-200 may be taken in any order.)

Other courses taught primarily in Italian or a maximum of two courses taken out of residence and approved for Harvard credit (i.e. study abroad courses) may be substituted for the above courses with the permission of the undergraduate adviser in Italian or the Director of Language Programs for RLL.

Students who plan to satisfy the requirements for a foreign language citation in Italian must complete a Foreign Language Citation Study Plan by fall of their senior year and submit it to the office of the Director of Language Programs in Romance Languages and Literatures (killough@fas.harvard.edu, Boylston Hall 436, 617-495-2524).

**Japanese**

Four courses from the following: Japanese 120a, 120b, 130a, 130b, 140a, 140b, 150a, 150b.

Language courses taken out of residence for Harvard degree credit may be substituted for these courses only after assessment via a Japanese placement test and with the permission of the East Asian Language Coordinator (eal@fas.harvard.edu).

Students who plan to satisfy the requirements for a foreign language citation in Japanese must complete a Foreign Language Citation Study Plan with the Language Program Coordinator in EALC (5 Bryant St., Room 205, eal@fas.harvard.edu).

**Korean**

Four courses from the following: Korean 120a, 120b, 123xb,130a, 130b, 140a, 140b, 150a, 150b.

Language courses taken out of residence for Harvard degree credit may be substituted for these

courses only after assessment via a Korean placement test and with the permission of the East Asian Language Coordinator (eal@fas.harvard.edu).

Students who plan to satisfy the requirements for a foreign language citation in Korean must complete a Foreign Language Citation Study Plan with the Language Program Coordinator in EALC (5 Bryant St., Room 205, eal@fas.harvard.edu).

**Latin**

Four courses chosen from the following: Latin 2x, 3, H, K, or any 10-level or 100-level Latin course, including those in Medieval Latin. At least two of the courses must be 100-level, Latin H, or Latin K.

Other advanced courses or courses taken out of residence for Harvard degree credit may be substituted for one or more of the above courses with the permission of the Preceptor in Ancient Greek and Classical Latin, Dr. Ivy Livingston (livings@fas.harvard.edu).

**Norwegian**

Two courses beyond beginning Norwegian (Scandinavian 90r.a-c) and two further courses conducted in Norwegian. These may consist of any tutorial in Norwegian, Supervised Reading and Research conducted on Norwegian (Scandinavian 91r), or courses taken out of residence for Harvard degree credit and approved by the Director of Undergraduate Studies in Scandinavian.

**Persian**

Persian 120a, 120b, 140ar, 140br.

More advanced courses or courses taken out of residence for Harvard degree credit may be substituted for these courses with the permission of the Director of Undergraduate Studies for the Near Eastern Languages and Civilizations concentration.

**Polish**

Four courses beyond the Elementary level (beyond the A-level courses Polish Aa-Ab). Typically the citation consists of two semesters of Intermediate Polish (Polish Ba-Bb) and two semesters of Advanced Polish (Polish Cr).

Courses taken out of residence (language study abroad) for Harvard degree credit or Slavic 91r (if conducted in Polish) may be substituted for these courses with the permission of the Director of the Slavic Language Program or the Director of Undergraduate Studies for the Slavic Languages and Literatures concentration.

**Portuguese**

Four of the following courses: Portuguese 20, 30, 40, 50, and/or any Portuguese course at levels 60, 70, 80, 100, or 200 conducted in Portuguese. (Note: courses 20-50 must be taken in numerical order; courses 60-200 may be taken in any order.)

Other courses taught primarily in Portuguese or a maximum of two courses taken out of residence and approved for Harvard credit (i.e. study abroad courses) may be substituted for the above courses with the permission of the undergraduate adviser in Portuguese or the Director of Language Programs for RLL.

Students who plan to satisfy the requirements for a foreign language citation in Portuguese must complete a Foreign Language Citation Study Plan by fall of their senior year and submit it to the office of the Director of Language Programs in Romance Languages and Literatures (killough@fas.harvard.edu, Boylston Hall 436, 617-495-2524).

**Russian**

Four courses beyond the Russian A-level courses selected from among the following: Russian Ba-Bb, Russian Bta-Btb, or Russian Bab (the equivalent of two semesters), Russian 101, Russian 103, Russian 102, or any advanced Russian language courses (Russian 111, 112, 113, 114, 115).

Other courses taken out of residence (language study abroad) for Harvard degree credit or Slavic 91r (if conducted in Russian) may be substituted for these courses with the permission of the Director of the Slavic Language Program or the Director of Undergraduate Studies for the Slavic Languages and Literatures concentration.

**Sanskrit**

Sanskrit 102ar, 102br, and any two courses in Sanskrit beyond 102br.

Courses taken out of residence for Harvard degree credit or Sanskrit 91r may be substituted for these courses with the permission of the Director of Undergraduate Studies for South Asian Studies.

**Slavic Languages**

See Bosnian, Croatian, and Serbian (BCS), Czech, Polish, Russian, and Ukrainian.

For information about studying other Slavic languages, please speak with the Director of the Slavic Language Program or the Director of Undergraduate Studies.

**Spanish**

Four of the following courses: Spanish 20, 30, 40, 50, and/or any Spanish course at levels 60, 70, 80, 100, or 200 conducted in Spanish. (Note: courses 20-50 must be taken in numerical order; courses 60-200 may be taken in any order.)

Other courses taught primarily in Spanish or a maximum of two courses taken out of residence and approved for Harvard credit (i.e. study abroad courses) may be substituted for the above courses with the permission of the undergraduate adviser in Spanish or the Director of Language Programs for RLL.

Students who plan to satisfy the requirements for a foreign language citation in Spanish must complete a Foreign Language Citation Study Plan by fall of their senior year and submit it to the office of the Director of Language Programs in Romance Languages and Literatures (killough@fas.harvard.edu, Boylston Hall 436, 617-495-2524).

**Swahili**

The equivalent of four half courses in Swahili above the introductory level, the courses include the following: Swahili BA, Swahili BB, Swahili 101ar, and Swahili 101br.

Other advanced courses in Swahili taken out of residence for Harvard degree credit or AAAS 91r (if conducted in Swahili) may be substituted for these courses with permission of the Director of the Language Program for the Department of African and African American Studies. In the case of summer study, the course must last six weeks or consist of at least 50 class hours; in addition, students must submit some graded written work done for the course.

**Swedish**

Four courses beyond the first-year level, including Swedish 20 and two courses in Swedish language and culture at the third-year level or above. These may consist of any tutorial or 100-level course conducted in Swedish, Supervised Reading and Research courses conducted in Swedish (Scandinavian 91r), or courses taken out of residence for Harvard degree credit and approved by the Director of Undergraduate Studies in Scandinavian.

**Tamil**

Tamil 102a, 102b, and any two courses beyond 102b.

Courses taken out of residence for Harvard degree credit or other advanced courses may be substituted with the permission of the Director of Undergraduate Studies for South Asian Studies.

**Classical Tibetan**

Tibetan 102a, 102b, and any two 200-level courses in Tibetan.

Courses taken out of residence for Harvard degree credit or other advanced courses may be substituted with the permission of the Director of Undergraduate Studies for South Asian Studies.

**Turkish**

Four of the following courses: Turkish 120a, 120b, 130a, 130b, 149.

More advanced courses or courses taken out of residence for Harvard degree credit may be substituted for these courses with the permission of the Director of Undergraduate Studies for the Near Eastern Languages and Civilizations concentration.

**Twi**

The equivalent of four half courses in Swahili above the introductory level, the courses include the following: Twi BA, Twi BB, Twi 101ar, and Twi 101br.

Other advanced courses in Twi taken out of residence for Harvard degree credit or AAAS 91r (if conducted in Twi) may be substituted for these courses with permission of the Director of the Language Program for the Department of African and African American Studies. In the case of summer study, the course must last six weeks or consist of at least 50 class hours; in addition, students must submit some graded written work done for the course.

**Ukrainian**

Four courses beyond the Elementary level (beyond the A-level courses Ukrainian Aa-Ab). Typically the citation consists of two semesters of Intermediate Ukrainian (Ukrainian Br) and two semesters of Advanced Ukrainian (Ukrainian Cr).

Courses taken out of residence (language study abroad) for Harvard degree credit or Slavic 91r (if conducted in Ukrainian) may be substituted for these courses with the permission of the Director of the Slavic Language Program or the Director of Undergraduate Studies for the Slavic Languages and Literatures concentration.

**Urdu (see Hindi-Urdu)**

**Vietnamese**

Four courses from the following: Vietnamese 120a, 120b, 130a, 130b, 140, and 140b.

Language courses taken out of residence for Harvard degree credit may be substituted for these courses only after assessment via a Vietnamese placement test and with the permission of the East Asian Language Coordinator (eal@fas.harvard.edu).

Students who plan to satisfy the requirements for a foreign language citation in Vietnamese must complete a Foreign Language Citation Study Plan with the Language Program Coordinator in EALC (5 Bryant St., Room 205, eal@fas.harvard.edu).

**Yiddish**

The equivalent of four terms selected from among the following: Yiddish B, Ca, Cb, 102r, 103r, 105, 200r, 202r, 204.

Other courses taught primarily in Yiddish or courses taken out of residence for Harvard degree credit may be substituted for the above courses with the permission of the Director of Undergraduate Studies for the Near Eastern Languages and Civilizations concentration.

**Yoruba**

The equivalent of four half courses in Yoruba above the introductory level, the courses include the following: Yoruba BA, Yoruba BB, Yoruba 101ar, and Yoruba 101br.

Other advanced courses in Yoruba taken out of residence for Harvard degree credit or AAAS 91r

(if conducted in Yoruba) may be substituted for these courses with permission of the Director of the Language Program for the Department of African and African American Studies. In the case of summer study, the course must last six weeks or consist of at least 50 class hours; in addition, students must submit some graded written work done for the course.

**Zulu**

The equivalent of four half courses in Swahili above the introductory level, the courses include the following: Zulu BA, Zulu BB, Zulu 101ar, and Zulu 101br.

Other advanced Zulu courses taken out of residence for Harvard degree credit or AAAS 91r (if conducted in Zulu) may be substituted for these courses with permission of the Director of the Language Program for the Department of African and African American Studies. In the case of summer study, the course must last six weeks or consist of at least 50 class hours; in addition, students must submit some graded written work done for the course.

**Advanced Standing**

Beginning with the Class of 2024, the option of Advanced Standing will no longer be offered. As an alternative, students will have the opportunity to apply to the Graduate School of Arts and Sciences for a master's degree pursued concurrently with the bachelor's degree. Full information concerning Advanced Standing is found on the website for the Office of Undergraduate Education. Questions about the program should be addressed to the Resident Dean or the Advanced Standing adviser in the Office of Undergraduate Education.

**Advanced Placement**

Students who are eligible for Advanced Standing using Advanced Placement Examination or International Baccalaureate scores, should be mindful that in the case of a few of the exams our faculty have determined that the material covered by the exam overlaps with content taught in a corresponding course at Harvard. The AP or IB course and Harvard course are deemed to be "equivalent" in the context of Advanced Standing, and the College will not give a student credit for both the exam and the equivalent course if the student were to activate Advanced Standing using that score. Not all AP or IB exams have equivalent courses at Harvard, but students considering Advanced Standing should be aware of this possibility and consult their placement and score records in my.harvard and the Advanced Standing section of the website for the Office of Undergraduate Education.

College Board Advanced Placement exams can be helpful indicators for level placement in certain subjects. Students are encouraged to send their scores to Harvard College through the Registrar's Office. In most instances, students will be expected to take placement exams even in subjects in which they may have taken an AP exam. The placement exam score and AP score are often considered together in the determination of placement recommendations.

**Advanced Standing**

New students, excepting all those admitted as transfer students, through the Class of 2023, will be eligible for Advanced Standing if they have received credit toward Advanced Standing at Harvard by receiving qualifying scores on the College Board Advanced Placement examinations, International Baccalaureate examinations, or certain international examinations. Consult the Office of Undergraduate Education and the Advanced Standing adviser for details. A small number of Harvard departmental exams may be used in combination with AP exam scores to meet Advanced Standing criteria; consult the Office of Undergraduate Education website.

Advanced Standing is designed for students through the Class of 2023 who wish to accelerate their study and for those ready to undertake specialized work early. An eligible student who wishes to use Advanced Standing to graduate after only six or seven terms in the College or, if accepted, remain a fourth year to pursue one of several specific master's degree programs, must activate Advanced Standing by the advertised deadline for degree applications during the third term before the student intends to complete the undergraduate requirements (consult this webpage, and Academic Calendar for details). Students may not activate Advanced Standing until they have declared a concentration.

Students eligible for Advanced Standing who are considering pursuing the AB/AM degree program may,

with the permission of the Administrative Board, bracket certain courses in their second, third, or fourth year. Bracketed courses are not counted toward the bachelor's degree, GPA calculations, or honors recommendations, but count toward the master's degree. (Bracketed courses are so called because they appear in brackets on the transcript.) The last date for bracketing courses is the fifth Monday of the term in which the course is being taken. Petitions to retroactively bracket courses may be considered by the Administrative Board from candidates admitted for the AM or SM degree as part of the AB/AM program. If a student does not enroll in the AB/AM program, or does not complete the AB/AM program, any courses that the student may have bracketed earlier will be automatically unbracketed.

For specific information on the number of letter-graded courses and the total credit requirements for the degree required of Advanced Standing students, see Credit Requirements for the Degree.

**Foreign Credentials**

Students presenting foreign credentials (e.g., British A levels, French Baccalauréat, Swiss Maturité scores) may be eligible for Advanced Standing upon evaluation of individual credentials. Students who have earned the International Baccalaureate diploma with scores of 7 on three Higher Level examinations may also qualify. For further information, please consult the Advanced Standing adviser in the Office of Undergraduate Education.

**Concurrent Master's Degree**

Beginning with the Class of 2022, students will have the opportunity to apply to the Graduate School of Arts and Sciences for a master's degree pursued concurrently with the bachelor's degree. As part of the concurrent degree program, students will be allowed to double-count up to sixteen credits for the Bachelor of Arts and either the Master of Arts or the Master of Science. An undergraduate pursuing the concurrent degree will complete both of these degrees by the end of eight terms of residency, or the equivalent. Students wishing to pursue this option may consult the Graduate School of Arts and Sciences for a list of approved programs.

Students admitted to the College prior to 2020 and who were eligible for advanced standing will be allowed to apply for and pursue the fourth-year master's degree in accordance with the rules for advanced standing that were in place when the students matriculated. Uniquely qualified students who will be juniors in the College before the fall of 2020 and who are not eligible for advanced standing, may petition the Office of Undergraduate Education for an exception allowing them to apply to the Graduate School of Arts and Sciences for a concurrent master's degree.

**Study at Other Boston-Area Institutions**

From time to time, students with strong academic plans wish to incorporate in those plans one or more courses at a local college or university with which Harvard does not have a cross-registration agreement, while continuing to be enrolled and take courses in the College. (The Faculty of Arts and Sciences has cross-registration agreements with the other Harvard Faculties and with MIT; see Cross-Registration.) With the exception of students who may be enrolled in one of the double degree (AB/MM) programs supported by the College (between the College and New England Conservatory or between the College and Berklee College of Music), Harvard undergraduates wishing to earn Harvard degree credit during a given term, up to 8 credits that are not available at Harvard, must demonstrate that these courses will contribute to a compelling academic plan tied to their concentration. This plan must be endorsed by the student's Head Tutor or Director of Undergraduate Studies, and then the student may petition the Administrative Board by the appropriate deadline for the term in which the student wishes to include courses elsewhere in their plans of study. Harvard College students who are enrolled in Harvard's double degree (AB/MM) program with New England Conservatory or Berklee College of Music may petition the Administrative Board by the appropriate deadline in order to be allowed to take up to 8 credits in a given term at New England Conservatory or Berklee College of Music. Double degree students must demonstrate that the course will contribute to a compelling academic plan tied to their work in the double degree program and that the course is not offered at Harvard. The student's plan must be endorsed by the adviser to the double degree program in Harvard's Department of Music.

It is each student's responsibility to gain admission to and pay for the instruction at the other institution and to present a transcript from the other institution for the work completed at the end of the term, following the usual procedures for study out of residence. Harvard tuition is reduced for these students on a per-course basis for each course taken elsewhere for Harvard degree credit, and those students

eligible for financial aid may apply their aid to the costs of studying at the other institution. Provided that their combined program at Harvard and the other institution adds up to a full load, students may continue in College housing subject to the ordinary eligibility rules. All other administrative procedures and limitations on the overall amount of credit a student may earn out of residence follow the policies for full-time study out of residence (see Procedures for Earning Degree Credit for Study Abroad). For more information, students should consult their Resident Dean.

**The Undergraduate Teacher Education Program**

The Undergraduate Teacher Education Program (UTEP) is a four-course sequence (16 credits) that permits a student to obtain a license (or "certificate") to teach in middle and/or secondary public schools in Massachusetts and the 40+ states with which Massachusetts has reciprocity. UTEP is not a concentration in itself but meant to complement a concentration.

Participation in the program requires approval of the UTEP admissions committee, which considers applications from students as early as the spring term in their sophomore year, or as late as the fall term in their senior year. The admissions process includes an interview and submission of an application, academic records, recommendations, a resume, and a Plan of Study. Students should have a B– or higher cumulative grade point average when they apply, and should also have some experience working with youth (e.g., as a camp counselor, tutor, coach).

To be eligible for licensure through UTEP, students must fulfill the following requirements:

Three Perspectives Courses: One course addressing psychological perspectives on human development; one course addressing educational perspectives on schools, curricula, and teachers; and one course focused on planning curricula in the subject for which the student is seeking a license. A list of eligible courses is available in the Teacher Education Program Office, Longfellow Hall, Room 310A, Graduate School of Education, or on the UTEP website.

Field Work (pre-practicum): One term of weekly classroom observations (six hours per week; 78 hours total) in an approved public school setting.

Student Teaching (practicum): 360 hours of supervised student teaching. This experience counts as one 4 credit course and must be taken at the Graduate School of Education after satisfying the pre-practicum fieldwork requirements.

Subject Matter Background: All UTEP candidates must have content expertise in an academic field taught in middle or secondary schools. UTEP offers preparation to teach biology, chemistry, earth science, English, general science (middle school only), history, mathematics, physics, and political science/political philosophy (social studies).

Ideally, all UTEP courses and field work should be completed within the junior and/or senior year. Students enrolled in the Undergraduate Teacher Education Program (UTEP) may receive credit for summer courses taken in the Graduate School of Education in order to satisfy UTEP program requirements. Students may also apply for special-student status in the Harvard Graduate School of Education to complete the student teaching and curricular planning requirements in the first term after graduation. This is known as the Term-After Option. UTEP is also piloting another option for completing the program requirements. This would require students to spend a summer student teaching at the Cambridge-Harvard Summer Academy, along with relevant coursework at the Graduate School of Education. This would be followed, in the fall semester, by the practicum, teaching methods course, and the course on educational perspectives. This allows undergraduates to complete the UTEP requirements with as little disruption as possible to their college coursework.

Interested students are encouraged to inquire about the program at any time. Questions should be directed to the UTEP Director, who is responsible for advising program participants. For further information, please contact the Undergraduate Teacher Education Program Office at the Graduate School of Education, Longfellow Hall, Room 310A, 617-495-2783, or visit the UTEP website.

**Harvard Teacher Fellows Program**

Harvard College seniors and alumni are eligible to apply to the Harvard Teacher Fellows (HTF) program at the Harvard Graduate School of Education. HTF is a fellowship that offers a fully funded teacher

licensure pathway, a year-long teaching placement, and the option to earn an Ed.M. from HGSE. Seniors apply to the program during the fall term of their senior year; admitted applicants begin coursework during the subsequent spring term by enrolling in T200: Introduction to Teaching and Learning. T200 is offered through cross-registration at HGSE and earns 4 undergraduate credits; it is a pre-requisite for the HTF program and does not count toward the Ed.M. degree. For more information visit the HTF webpage.

**Human Subjects Research**

Harvard University policy and federal regulations require that all research involving human subjects that meets the federal regulatory definition of human subjects research be reviewed and approved by an Institutional Review Board (IRB) before the research begins. This requirement applies to all human subjects research meeting the federal definition conducted by faculty, staff and students, on- and off-campus, regardless of funding. The IRB for Harvard University-Area researchers is the Committee on the Use of Human Subjects (CUHS).

The purpose of the IRB is to weigh risks and benefits of participation in research and to protect the rights and welfare of the research participants. The guiding ethical principles of the IRB - respect for persons, beneficence and justice - are embodied in the "Belmont Report": Ethical Principles and Guidelines for the Protection of Human Subjects of Research.

Applications to the IRB must be submitted through the Electronic Submission, Tracking and Reporting system (ESTR). Please consult the CUHS website or contact CUHS at 617-496-2847 or cuhs@harvard.edu to find out more information about:

- The types of research that require IRB review;
- The process for submitting applications;
- The training required for investigators and their Faculty Sponsors;
- Appropriate forms, templates and guidance documents;
- And, the special process and training program for undergraduate research (http://cuhs.harvard.edu/urtp-portal).

**Research and Teaching Involving Animal Subjects**

Research Administration Services

Office of the Vice Provost for Research

The use of live animals in research and teaching is a societal and individual privilege that is taken seriously at Harvard and is a highly regulated activity. University policies and local, state, and federal government regulations require advance review and approval of all vertebrate animal and cephalopod research prior to its commencement. The Faculty of Arts and Sciences' (FAS) federally mandated Institutional Animal Care and Use Committee (IACUC) is responsible for reviewing and approving proposed studies for FAS and the Harvard John A. Paulson School of Engineering and Applied Sciences (SEAS).

IACUC administrative services are provided by staff in the FAS Research Administration Services (RAS) office. All individuals using vertebrate animals or cephalopods in research and/or teaching must participate in the institution's occupational health program, complete assigned training and courses in the Harvard Training Portal, and attend animal facility orientation.

The Office of Animal Resources (OAR) is the unit responsible for the housing, daily care and health of vertebrate animals used on campus in the FAS and SEAS. All mammals and other select vertebrates housed in OAR-managed facilities must be ordered through the OAR's Animal Ordering system; questions regarding orders may be sent to animalorders@fas.harvard.edu.

Any concerns or questions about the care and use of laboratory animals should be directed promptly to any of the following contacts listed below. In accordance with the University's Whistleblower Policy, the University will protect from retaliation members of the Harvard community who make good faith reports of suspected violations of law or University policy. The University's Compliance Hotline is a resource for members of the Harvard community who are uncomfortable reporting through the recommended contacts and prefer to anonymously report any suspected violations of law or Harvard policy.

- Craig P. Hunter, PhD, Professor of Molecular and Cellular Biology, IACUC Chair: (617) 495-8309, craig_hunter@harvard.edu
- Leslie A. Kirwan, Dean for Administration and Finance of the Faculty of Arts and Sciences, Institutional Official of the IACUC: (617) 496-8729, leslie_kirwan@harvard.edu
- Kathleen Pritchett-Corning, DVM, Attending Veterinarian and Interim Director of the Office of Animal Resources: (617) 384-6642, pritchettcorning@fas.harvard.edu
- IACUC administrative office: iacuc@fas.harvard.edu
- Compliance Toll-free Hotline: 877-694-2275

## Check-In Process and Course Registration

**The Check-In Process**

Students are required to complete the check-in process online at the opening of each term by the date designated in the academic calendar. A student who fails to complete the check-in process by the deadline is subject to disciplinary action and will incur a $50 charge. Information about the check-in process is available on the Registrar's web site. (For additional check-in information, see the Academic Calendar and Check-In and Course Registration.)

## Choice of Courses

Every student is required to select FAS courses from those listed in my.harvard, with the guidance of a first-year student adviser, sophomore adviser, or concentration adviser or tutor. (For enrollment in non-FAS courses, see Cross-Registration.) Selection should be made with a view toward satisfying concentration and General Education requirements and other degree requirements not already met. Students must qualify for each selected course according to the course's guidelines and prerequisites stated in my.harvard or otherwise satisfy the instructor that they are properly prepared to enroll in it.

Courses in the Faculty of Arts and Sciences are numbered according to the following scheme:

- 1–99 or 910–999: Primarily for Undergraduates
- 100–199 or 1000–1999: For Undergraduates and Graduates
- 200–299 or 2000–2999: Primarily for Graduates
- 300–399 or 3000–3999: Graduate Courses of Reading and Research

Courses numbered in the 100s or 1000s or below and courses designated by capital letters ordinarily are open to all students who have met the prerequisites unless the instructor's permission is required (indicated on my.harvard), or unless enrollment is restricted by the size of the room or by similar limitations of resources. Undergraduates may not enroll in courses numbered in the 300s or 3000s. The appropriate course level is indicated in the course record ('for undergraduates', 'for undergraduates and graduates', etc.) Exceptions are Advanced Standing students in their fourth year of residence who are candidates for the master's degree. They may enroll in such courses with the instructor's permission.

It is inappropriate for students to receive credit for the same work for which they are financially compensated. Thus, undergraduate course assistants may not receive academic credit in any form, including Independent Study and Supervised Reading and Research course credit, for courses with which they are assisting. Research for which students receive a grant may inform their academic work. Research performed for other financial compensation may inform academic work in subsequent semesters only, and only with the express permission of the employer, including a laboratory head.

## Course Registration

Prior to registering for courses, students must meet with their first-year student adviser, sophomore adviser, or concentration adviser. After the meeting, the adviser will release the advising hold. Students officially register for courses by submitting them online at my.harvard. Registration is not complete until

students have enrolled in their minimum required course load – typically 16 credits – and any required petitions for cross-registration or Independent Study have been approved (students need to submit their petitions after receiving approval to enroll in courses; the final step belongs to the student).

Course registration may be held for a variety of reasons, such as unpaid term bills, immunization, or meeting with adviser. Failure to clear the hold by the course registration deadline is not a legitimate reason for a late fee waiver. Students should visit my.harvard to see what holds may exist on their student account that may prevent them from registering for courses. Financial holds indicate that students must clear their accounts with the Student Financial Services Office before being allowed to register. A medical hold usually requires the submission of further immunization documentation to Medical Records at Harvard University Health Services. The International Office may also place a hold on the registration of a foreign student if the proper credentials have not yet been presented to that office. Holds may also be placed if a student has a disciplinary case pending before the Administrative Board, or for other reasons as indicated in my.harvard. Students should contact the appropriate office and make arrangements to clear the hold.

Course registration deadlines appear in the Academic Calendar. A student who fails to register for courses on time with the minimum required course load (typically 16 credits) will incur a charge of $40 per week until they are fully enrolled. Students who fail to register for a minimum required course load are subject to disciplinary action and may be placed on an involuntary leave of absence. Ordinarily, no students, including those who have not been able to clear holds for financial reasons, will be allowed to register for courses after the second Friday following the course registration deadline. Students enrolling after the course registration deadline will need to follow the “add” process, meaning that the permission of each instructor is required. After the fifth Monday of the term, the Administrative Board's approval is also required. The deadline to change the grading basis of a course to Pass/Fail or back to Letter Grade is the fifth Monday of the term.

It is the responsibility of students to confirm their course enrollment for that term. A student is considered registered only for those courses listed in My Classes on my.harvard for the current term. A student may not sign any other person’s name or initials, or falsify in any way, a Plan of Study, change-of-course petition, registration form, or any other official form or petition, hard copy or electronic. Violation of this rule makes the student subject to disciplinary action, including requirement to withdraw.

## Course Credit Without Letter Grades

Freshman Seminars (Graded SAT/UNS)

Courses Taken by Cross-Registration

Courses Graded Pass/Fail

Courses Graded SAT/UNS

Independent Study (Graded Pass/Fail)

Students enrolling in courses without letter grades are reminded of the following requirements:

- Each term students must take for credit at least one letter-graded course offered by the Faculty of Arts and Sciences. Courses taken in the Graduate School of Education under the UTEP Program constitute an exception to this rule.
- Of the 128 credits students must pass to receive the degree, at least 84 credits (96 credits for a degree with honors) must be letter-graded C– or higher and be given by the Faculty of Arts and Sciences. The only non-letter grade that may be counted towards the requirement of 84 satisfactory letter-graded credits is Satisfactory (SAT). Please see the section below on Courses Graded SAT/UNS for an explanation of which SAT courses may be considered.
- No more than one of the four required General Education courses (Aesthetics & Culture, Ethics & Civics, Histories, Societies, Individuals, and Science & Technology in Society) may be taken pass/fail.
- Writing, foreign language, and certain concentration requirements can only be satisfied by letter-graded courses.
- Ordinarily, no first-year student or sophomore may take fewer than three letter-graded courses (4 credits per course) in any term.

Transfer, term-time study abroad, and Advanced Standing students should see Credit Requirements for the Degree and other previous sections referring to them.

**Freshman Seminars (Graded SAT/UNS)**

First-year students admitted to Freshman Seminars may earn non-letter-grade credit up to a maximum of 2 courses (4 credits per course). First-year students may not ordinarily enroll in both a Freshman Seminar and another non-letter-graded course in any one term (with the exception of COMPSCI 50 and a Freshman Seminar). A Satisfactory (SAT) grade in a Freshman Seminar may not be counted towards the requirement of 84 satisfactory letter-graded credits unless the Seminar fulfills a concentration requirement.

**Courses Taken by Cross-Registration**

Courses taken either by cross-registration or out of residence for degree credit will not be counted toward the letter-graded credit requirement and will not factor into the grade point average (GPA) unless they are applied toward concentration requirements or the requirements for the Undergraduate Teacher Education Program (UTEP). (See Cross-Registration)

**Courses Graded Pass/Fail**

Any undergraduate may, with the permission of the instructor, enroll in a course on a Pass/Fail basis. There is no limit on the number of courses a student may take Pass/Fail as long as the student satisfies the requirements for letter-graded courses as outlined above. To enroll in a course on this basis, a student must submit a Pass/Fail form to the Registrar's Office and obtain the signature of the course instructor by the deadline indicated on the form. Refer to the Registrar's website for more information. No course may be added Pass/Fail nor may the grading status of a course be changed after the fifth Monday of the term.

**Courses Graded SAT/UNS**

Some courses, most notably tutorial courses (see Non-Letter Grades) and Freshman Seminars, are graded SAT/UNS. In addition, House Seminars may be graded SAT/UNS at the option of the course instructor and with the approval of the Committee on Freshman Seminars. When so graded, House Seminars will not count toward the 84 satisfactory letter-graded credit requirement. A Freshman Seminar will not count towards the 84 satisfactory letter-graded credit requirement unless it is being used to fulfill a concentration requirement. Only one year-long (8 credit) senior tutorial course graded Satisfactory (SAT) may be counted towards the requirement of 84 satisfactory letter-graded credits.

**Independent Study (Graded Pass/Fail)**

Independent Study is designed to provide credit for field research, academic study not available in regular course work, or practice or performance in the arts. It is not suitable for group instruction, paid work, or activities outside the competence or concern of one of Harvard's departments.

For example, studying the financial accounting system of a business firm might be an appropriate project, but working in an accounting office to gain business experience would not by itself merit academic credit. Investigating child development through observation in a day care center could qualify, but simply tutoring a child would not. Analyzing the organization of a political group might be a suitable subject, whereas organizing a political campaign would not alone suffice. In each case what distinguishes the suitable project is the application of analytical skills to the object of the Independent Study, not the intrinsic worthiness or instructiveness of the experience itself.

Any sophomore, junior, or senior whose previous record is satisfactory may petition to undertake Independent Study for non-letter-graded credit. A student may petition to take up to a total of 16 credits of Independent Study. Independent Study courses are subject to the same rules for dropping and withdrawing as any other course.

A petition to undertake Independent Study, available on the Office of Undergraduate Education website, requires two signatures:

1. That of a qualified adviser (ordinarily a voting member of a Harvard Faculty) who must be an officer of the University, and whose professional competence is appropriate for the subject

area of the Independent Study. In those exceptional cases where the adviser is not a Faculty member—for example, a teaching fellow—the petition must also be supported by an appropriate academic department or unit.
2. That of the Resident Dean which signifies that the proposal satisfies the guidelines and has been signed by the adviser.

The petition also requires an outline of the student's proposed project. It must be submitted to the Resident Dean for approval, ordinarily in the first week of the term. In addition, the Resident Dean must approve the course. A separate petition, properly completed, must be filed for each Independent Study course.

The adviser will assist the student in the development of a plan for Independent Study and provide guidance but not regular instruction. Independent Study does not imply regular formal instruction and should not be confused with tutorials or House Seminars or Supervised Reading and Research courses offered by several academic departments and committees. A student enrolled in Independent Study must undertake to work independently. Classroom work, regular instruction, and group projects are inadmissible. Students whose projects include interviews or research involving human subjects should contact the Harvard Committee on the Use of Human Subjects (Institutional Review Board).

The adviser will submit a midterm progress report based on a preliminary written report by the student of the student's activities. By the fourth day of Reading Period, the student must submit to the adviser an analytical paper concerning the term's work. A simple description or report of the term's activities is not by itself adequate. In the case of artistic practice or performance, evidence of substantial accomplishment should be supplied in lieu of written work.

The granting of credit will be determined by the adviser. In those cases where the adviser is not a voting member of a Harvard Faculty, the Chair or Head Tutor/Director of Undergraduate Studies of the concentration, or equivalent officer with voting membership in a Harvard Faculty, must review and approve the petition and the grade assigned by the adviser. Independent Study is graded "Pass" or "Fail." The adviser will submit a copy of the student's paper and a brief statement about the student's work for inclusion in the student's folder in the Resident Dean's office, ordinarily by the first day of the Examination Period.

Independent Study is not counted toward General Education requirements and is not normally counted toward concentration or secondary field requirements.

First-year students may not enroll in Independent Study. They may, however, seek special permission from their Resident Dean to enroll in one Supervised Reading and Research course within the Faculty of Arts and Sciences (91r- and 910r-level course category) if an appropriate member of the Faculty of Arts and Sciences has indicated a willingness to supervise.

## Simultaneous Enrollment

The Faculty believes that active engagement in a classroom setting is essential to learning. Therefore, students may not enroll in courses that meet at the same time or at overlapping times, except in two cases:

1. When one of the two courses has been granted a waiver from the Administrative Board petition process by a subcommittee of the Standing Committee on Undergraduate Educational Policy (EPC). For a list of courses granted waivers, please see the OUE website.

2. When the student has received permission from the heads of both courses and approval from the Administrative Board to enroll in the two courses simultaneously. The Administrative Board will consider exceptions to the rule only if the instructors in both overlapping courses agree and only in one or more of the following circumstances:

    1. When the head of the course where class time is being missed and the person(s) providing the instruction during the regular class meeting agree to provide hour-for-hour direct and personal compensatory instruction. Availability during regular office hours or

time with a different person does not satisfy the requirement for direct and personal contact. The Administrative Board will require detailed plans for compensatory instruction from students receiving the instruction and from the faculty providing instruction. Recordings are not considered compensatory instruction. Plans for simultaneous enrollment must include explicit arrangement for students to take hourly and midterm exams, quizzes, and other in-class assessments. Conflicts between Registrar-scheduled final exams will be resolved by the Registrar.

2. When a senior can meet degree requirements only by taking the two particular courses in question and will have no other opportunity to enroll in the courses before graduation. In such circumstances, the Administrative Board may approve reasonable accommodations in consultation with the instructors of the courses involved.

It is the student's responsibility to ensure that there is no overlap in the meeting times of their courses.

Students who wish to petition the Administrative Board for simultaneous enrollment should work directly with their Resident Dean.

## Cross-Registration

Regulations

Concentration Credit

Grading

ROTC

Students who wish to enroll in courses offered by Harvard's professional schools or MIT may do so at my.harvard.edu and should visit the Registrar's website for instructions. In addition to submitting an online petition, first-year students are also required to send a statement of interest by email to their Resident Dean. The statement should explain why the student wants to cross-register, how the course fits into the student's curricular plans, and why no other courses within the Faculty of Arts and Sciences will meet those needs.

In order to cross-register, a student's immediately previous academic record ordinarily must be satisfactory. Exceptions must be approved by the Resident Dean (see Harvard Summer School for information on registration in the Harvard Summer School).

Under special conditions it may be possible for a student to earn degree credit for courses taken at another local institution provided that those courses contribute to a compelling academic plan tied to the student's concentration; see Study at Other Boston-Area Institutions.

**Regulations**

Harvard College students cross-registered in courses at other Harvard faculties may count up to eight credits toward the 128 minimum number of credits required for the Bachelor of Arts or Science degree. This arrangement excludes cross-registration with MIT, which is allowed without limitation on the number of credits.

Courses taken through cross-registration will not meet the College's Divisional distribution requirement.

Exceptions to the 8 credit maximum will be allowed only if the student's concentration will accept the credits for concentration credit. Each additional course must be approved by the student's Head Tutor or Director of Undergraduate Studies.

All undergraduate regulations, including those regarding the deadlines for dropping and withdrawing, makeups, and extensions of time apply to cross-registration courses, even though other faculties may use a different calendar. These regulations also apply to undergraduates cross-registered in courses that may be applicable to graduate degree requirements. Harvard College students are expected to follow

the deadlines and procedures of both the College and the other faculty or university. When two deadlines conflict, the earlier one applies.

Students must complete all course work by the last day of FAS examinations unless they receive approval from the Administrative Board for an extension of time (see Extensions of Time for Written or Laboratory Work). Students must bring examination conflicts caused by cross-registration to the attention of the appropriate registrars as soon as possible. Students requesting a makeup examination in a cross-registration course must report this to their Resident Dean, as usual, and must also petition the Registrar of the Faculty offering the course to arrange the makeup, which, if approved, will be given under the rules of that Faculty.

To meet graduation deadlines, second-term seniors should notify the instructor that grades for degree candidates must be received by the FAS Registrar at least ten days prior to Commencement. Harvard College students cannot graduate if grades are missing.

Students may not cross-register into January term courses nor may they receive credit for January term courses.

**Concentration Credit**

Students who want to petition to receive concentration credit for a course taken through cross-registration should fill out this form and contact their undergraduate program administrator to complete the petition process no later than the fifth Monday of the term in which the course is taken. Students who have not yet declared a concentration may petition for credit retroactively no later than the fifth Monday of the fourth term in residence. Contact your program administrator for more information.

**Grading**

When cross-registration courses taken by undergraduates are evaluated in terms not equivalent to grades used by the Faculty of Arts and Sciences, the FAS Registrar will translate these evaluations into “Credit” or “No Credit,” as appropriate. Since “Incomplete” cannot be accepted as a grade for an undergraduate, such grades will be converted to “No Credit” (a failing grade) unless an extension of time is voted by the Administrative Board. Students may take cross-registered courses for a letter grade or Pass/Fail unless a specific grading option is required for the course.

Passing grades received for courses taken through cross-registration will not be used in computing a student’s grade point average except when the courses are counted toward concentration requirements or taken in the Graduate School of Education as part of UTEP (see Grade Point Averages for Undergraduates). Courses taken by cross-registration that are not counted toward concentration or UTEP requirements will normally be equated to FAS courses for the purpose of calculating rate of work (see Rate of Work) but will not be counted toward the letter-graded credit requirement or any honors degree requirements. A failing grade or the equivalent earned in a cross-registered course will be included in honors degree calculations and grade point average. Harvard will not count toward the undergraduate degree any courses that have been credited toward other degrees already conferred. Students may earn degree credit for cross-registration up to 8 credits (unless it is approved to count towards your concentration; such courses do not count against the 8 credit limit for cross-registration). Courses taken for cross-registration beyond the 8 credit limit will appear on your Harvard College transcript with a grade but with zero credit earned.

**ROTC**

ROTC courses may be taken by cross-registration at MIT. First-year students may cross-register in ROTC courses, but must follow the petition process established above for first-year students. Students may earn up to eight Harvard credits through ROTC cross-registration at MIT towards the Harvard degree. These courses will count towards the overall credits required to graduate, but they will not factor into the GPA or satisfy concentration requirements. In order to be transferrable to Harvard, the MIT ROTC courses in Naval Science, Military Science, and Aerospace Studies must earn at least six MIT units. Students should be aware that there may be certain academic requirements for eligibility in receiving ROTC scholarship aid.

# Change of Course

Courses may be added or dropped at my.harvard. Withdrawal petitions are available on the Registrar's web site at https://registrar.fas.harvard.edu.

It is the student's responsibility to review the course report carefully, and to perform the appropriate edit/drop/swap function at my.harvard by the fifth Monday of the term. Corrections (as opposed to changes) to student records made after the established deadlines of the fifth or seventh Monday of the term must be approved by the Administrative Board and will incur a charge of $25 in addition to the charge of $10 for correction of student errors made on my.harvard. The student can confirm the recording of drop/add petitions by checking My Courses on my.harvard. Receiving permission to enroll in a course is not the final step. The last step in this process belongs to the student. After permission is granted, the student must enroll in the course by submitting the add petition on my.harvard.

**Dropping/Adding Courses**

Students may add a course until the fifth Monday of the term with the permission of the instructor. Students may drop a course from their record only until the fifth Monday of the term. Special enrollment dates are used for module courses (typically half-semester in length); consult the academic calendar of the school offering such courses.

Students are not charged for any adding or dropping by the third Monday of the term. All students pay a $10 fee for adding or dropping courses after the third Monday until the fifth Monday deadline.

**Withdrawing from Courses without Credit**

A student may petition to withdraw from a course by the eleventh Monday of a term. When a petition to withdraw from a course has been approved, the student's record will carry the notation WD for the course. The transcript states: "WD indicates permission to withdraw from the course without completing requirements and credit for the course." All students pay a $10 fee for withdrawal petitions filed by the eleventh Monday of the term.

A student who does not receive permission to drop or withdraw from a course by the fifth or eleventh Monday, respectively, and who is absent from a regularly scheduled final examination, during the Final Examination and Project Period, will receive a grade of ABS (Absent) in the course. An unexcused ABS is equivalent in all respects to a failing grade.

**Changing Letter-Graded or Pass/Fail Status of Courses**

A course may be changed from letter-graded to Pass/Fail (with the instructor's approval), or changed from Pass/Fail to letter-graded until the fifth Monday of the term. After that day, no changes in the grading status of any course can be made. There is no fee for changing the grading status in a course. (See Cross-Registration and Year-long Courses.)

# Year-Long Courses

Year-long Courses

- Suspending Credit
- Dividing with Credit at Midyear
- Leaving a Year-long Course at Midyear Because of Absence from the College
- Changing Letter-Graded or Pass Fail Status

A small number of course offerings in FAS are year-long, which means that they extend from September to May and ordinarily count for eight credits. Year-long courses, such as certain senior tutorials and first-year language courses, are considered indivisible, which means a student must successfully complete the entire year-long course in order to earn credit and they ordinarily may not be divided midyear with credit.

**Year-long Courses**

Students who enroll in the fall term for a year-long course will be auto-enrolled for the second part of the

course in the spring and may not drop the course after the fifth Monday of the fall term. Students will be granted a midyear grade for the course at the end of the fall term with a notation that it is a midyear grade. Upon completion of the spring term the fall grade will be replaced on the transcript with the spring grade and that grade will be used to calculate the GPA.

Year-long courses are subject to the drop deadline of the fall term and the withdrawal deadline of the spring term.

**Suspending Credit**

Should a student need to leave a year-long course at the end of one term and plan to complete the second half at a later date they may, with the permission of the instructor, suspend the first half until the course is completed. The deadline for filing a petition to suspend is the seventh Monday of the subsequent term. A student may take the second half of the course at a later time and the suspended grade for the fall will be replaced by the spring term grade of the second half of the course. In some cases when the faculty member of either iteration of the course deems it appropriate, the student may be required to divide the course with credit as opposed to suspending it.

Any suspended course that has not been completed or divided for credit by the seventh Monday of the student's final term in residence will automatically be converted to Withdraw by the Registrar.

**Dividing with Credit at Midyear**

Students may only divide a year-long course with half (ordinarily 4 credits) credit with the written consent of the instructor and the approval of the Registrar. Students should consult the Registrar's Office for additional information about this option. No student shall be allowed to divide with credit after the fifth Monday of the spring term.

**Leaving a Year-Long Course at Midyear Because of Absence from the College**

When a student who is enrolled in a year-long course leaves the College at midyear, the Registrar automatically suspends the course if the student has earned a passing midyear grade. If the student has a failing midyear grade, the student will be withdrawn from the course; however, the failing grade makes the student's record for that term unsatisfactory, and the student will be subject to academic review by the Administrative Board. Upon return to the College, the student may change an automatic suspend to a withdrawal.

**Changing Letter-Graded or Pass/Fail Status**

The fall term grading status of a year-long course may be changed up to the fifth Monday of the fall term. A student who is enrolled in a year-long course during the fall term may change the grading status of that course for the spring term by filing an appropriate change-of-grade petition by the fifth Monday of the spring term. Pass/Fail grading status always requires the instructor's permission. When the grading status of a year-long course is different for the fall and spring terms, the midyear grade will appear on the transcript as a fall term (4 credit) grade.

# Repeating Courses

Students who wish to repeat a course for which they have received a passing grade may do so. The second iteration of the course and its grade will appear on the transcript showing zero credit and will not count in any way toward degree requirements, determination of honors, or grade point average. Occasionally, two courses with different numbers will present material that overlaps in content to a significant degree, and in such instances the rules for repeating a course will pertain if a student wishes to take both courses. Courses that are determined to overlap to a significant degree are identified by the department(s) offering them and are so noted in my.harvard.

Students are normally allowed to repeat failed courses for both grade and credit. Note, however, that the failing grade received when the course was taken the first time remains a permanent part of the College record, and both remain factored into the grade point average.

Courses designated with an "r" (such as 91r) in my.harvard may be repeated for credit without petition.

# Rate of Work

The Faculty of Arts and Sciences typically awards 4 credits to a semester-long course and does not assign extra credit granted for courses with laboratory work. The normal rate of work is 16 credits per term, at least 4 credits of which must be taken for degree credit and a letter grade and offered by the Faculty of Arts and Sciences. Courses taken in the Graduate School of Education under UTEP may be substituted for a letter-graded course in the Faculty of Arts and Sciences.

Ordinarily, students may take 20 credits each term (5 courses, 4 credits per course). Students wishing to take more than 20 credits in a term must obtain the approval of their Resident Dean. First-year students who wish to take more than 16 credits (4 courses, 4 credits per course) in their first term must obtain the approval of their Resident Dean. Students may not enroll in more than 24 credits (6 courses, 4 credits per course) in one term without Administrative Board approval.

Ordinarily, no student may work at a rate less than necessary to maintain a yearly average rate of 32 credits passed (i.e., by the end of the first year, at least 32 credits completed; by the end of sophomore year, at least 64 credits completed; and by the end of junior year, at least 96 credits completed). By taking extra courses, students may accumulate credit that may be used to reduce their rate of work in a subsequent term or terms, provided that the overall average rate of 32 credits per year is maintained. First-year students who wish to complete fewer than 16 credits per term must obtain the approval of their Resident Dean. Students who do not proceed toward the degree at a satisfactory rate are subject to Administrative Board action, including denial of permission to register for subsequent terms.

**Tuition Charges**

Tuition adjustment for those permitted to work at less than the normal rate will be determined on a case-by-case basis by the Administrative Board. No remission of tuition is allowed when a student has been excluded from a course (see The Grading System and Exclusion from a Course).

Visiting Undergraduate Students will be charged at a per-course rate. Courses dropped or withdrawn will be charged on a pro-rated term following the tuition refund schedule for students withdrawing from the University.

**Residence Requirement**

No student will be recommended for the AB or SB degree without having completed at least as many terms in residence at Harvard as would have been required had the student worked continuously at a sixteen credit (4 courses per term, 4 credits per course) rate. A student who has completed degree requirements in fewer terms than would have been required had the student worked continuously at the sixteen credit rate may petition the Resident Dean for waiver of the residence requirement (see Acceleration).

# Additional Term

In exceptional cases, and only to meet specific degree requirements for the AB degree, students may petition the Administrative Board for permission to remain in the College for one term beyond the end of the second term of their senior year. Students undertaking the SB degree who require additional time in the College in order to meet the requirements of that degree must petition the Engineering Undergraduate Committee by the appropriate deadline. Tuition for an additional term is charged at a per course rate. Ordinarily, students in an additional term are not eligible for College housing or financial aid. Before petitioning the Administrative Board or the Engineering Undergraduate Committee for an additional term, students should consult with their Resident Dean about their proposed academic program, tuition and fees, and eligibility for College housing and financial aid. The Board or the Committee will weigh the academic record and performance in the community when considering these petitions. Under no circumstances will the Board grant a student permission for more than one additional term.

# Extra Transfer Term

The system by which intercollegiate transfer students receive credit for work done at their previous colleges may underestimate the amount of time a student needs at Harvard to complete a sound and appropriate program for the degree. Therefore, to meet specific degree requirements, transfer students may petition the Administrative Board for an “extra transfer term” in addition to the allotted number of terms they were granted on admission. Transfer students are eligible for only one extra transfer term.

Students granted an extra transfer term:

- enroll and pay at the sixteen credit (4 courses per term, 4 credits per course) rate;
- must fulfill an additional General Education requirement with the exception that junior transfers who remain for a fifth term do not need to take a fifth General Education course;
- are entitled to housing in the College, provided they have not already lived in College housing for six terms, in which case they may apply for housing on a space-available basis; and,
- may apply for financial aid to help defray the costs of the extra transfer term.

If transfer students need no more than two additional courses to complete their academic programs, they may petition for an additional term. Students may petition for an additional term following an extra transfer term (above), or without having completed an extra transfer term. Since these students do not enroll in more than two courses, they do not incur an additional General Education requirement. They are, however, subject to all the usual “additional term” provisions.

## Harvard Summer School

Degree credit will be granted only for summer school courses offered by the Harvard Summer School, except that under special circumstances credit for course work done at other institutions may be awarded provided that advance approval has been obtained (see Procedures for Earning Degree Credit for Study Abroad). Students enrolled in the Undergraduate Teacher Education Program (UTEP) may receive credit for summer courses taken in the Graduate School of Education in order to satisfy UTEP program requirements. Harvard undergraduates may not earn credit for courses taken through the Division of Continuing Education's Extension School.

All numbered or lettered courses announced in the Harvard Summer School catalog count as work done in residence if taken prior to graduation under the “credit” category, unless stated otherwise in the Harvard Summer School catalog (see the section "Harvard College Student Guidelines" in that catalog). These courses and grades are always entered on the student’s College record and counted accordingly, provided one or more of the courses taken can fulfill degree requirements. Note the following exceptions:

- Courses taken before matriculation as a degree candidate in Harvard College will be added to the College record only by vote of the Administrative Board; such a vote is final and the Board will not subsequently approve a petition to remove such courses from a student’s College record. Students should ordinarily petition for such credit during their first year. Note: Petitions granted by the Administrative Board after the deadline for the student’s degree application will postpone the student’s degree until the next date on which degrees are voted by the Faculty.
- Courses taken after the last term in residence will not be added to the College record unless one or more are necessary to meet degree requirements.
- Students may not receive credit toward a degree for a Summer School course that is essentially the same course as one taken previously for credit, either in Summer School or during the academic year, whether or not the two course numbers or titles are identical.
- Note that Harvard College students may not count online Summer School courses toward their Harvard College degrees.

Students cannot be relieved from academic probation on the basis of Summer School work, but courses taken in Summer School are subject to academic review by the College.

The minimum Harvard Summer School program is 4 credits and the regular Harvard Summer School program is 8 credits. Only with the prior permission of the Resident Dean may any undergraduate enroll in 12 credits in Summer School. The Resident Dean who grants this permission submits the approval directly to the Summer School.

New first-year students, admitted for September, are strongly urged to consult with their Resident

Dean about the content of their summer programs. New transfer students are likewise urged to consult with the Transfer Student Adviser.

The Summer School does not attempt to provide courses that Harvard College students might be required to take in order to meet degree requirements. For example, courses to meet particular concentration or General Education requirements may not be offered by the Summer School.

Students who plan to complete degree requirements (including “lost degree” candidates) in the Summer School are required to so notify the Registrar of the Faculty of Arts and Sciences at graduation@fas.harvard.edu. These students are reminded to be certain that the courses in which they are enrolling do, in fact, complete their remaining degree requirements.

No student may enroll in Independent Study during the summer, but students may petition to enroll in Supervised Reading and Research courses or tutorial courses (90- and 900-level courses) in the Harvard Summer School. These courses require a special enrollment form, obtainable in the Summer School Office, which must be signed by the Head Tutor or Director of Undergraduate Studies (or equivalent officer) in the field, by the instructor who is to supervise the course, and by the Registrar of the Summer School. The usual Summer School course fee is charged for all courses taken in the summer, and the work in the course must be completed before the end of the Summer School Examination Period.

Non-Completion and equivalent grades received in Summer School courses will be converted to “No Credit” (NCR), a failing grade, unless an extension has been granted by the Administrative Board of the Harvard Summer School.

Students who register for Harvard Summer School who are on leave of absence or who have been required to withdraw from Harvard College for any reason must submit to the Summer School a Resident Dean Approval Form signed by their Resident Dean. No student who for disciplinary reasons has been required to withdraw for the second and final time, dismissed, or expelled from Harvard College may ordinarily enroll in the Harvard Summer School.

Any violation of Harvard Summer School academic and disciplinary policy is subject to review and disciplinary action by the Summer School Administrative Board and in addition may trigger action by the Harvard College Administrative Board or Harvard College Honor Council as appropriate.

# Grades and Honors

The Grading System

Letter Grades

Non-Letter Grades

**The Grading System**

The Faculty of Arts and Sciences uses the following system of letter and non-letter grades to evaluate undergraduate student work:

**Letter Grades**

**A, A–** Earned by work whose excellent quality indicates a full mastery of the subject and, in the case of the grade of A, is of extraordinary distinction.

**B+, B, B–** Earned by work that indicates a good comprehension of the course material, a good command of the skills needed to work with the course material, and the student’s full engagement with the course requirements and activities.

**C+, C, C–** Earned by work that indicates an adequate and satisfactory comprehension of the course material and the skills needed to work with the course material and that indicates the student has met the basic requirements for completing assigned work and participating in class activities.

**D+, D, D–** Earned by work that is unsatisfactory but that indicates some minimal command of the

course materials and some minimal participation in class activities that is worthy of course credit toward the degree.

**E** Earned by work which is unsatisfactory and unworthy of course credit towards the degree.

**Non-Letter Grades**

**ABS** Students who miss a regularly scheduled midyear or final examination are given a failing grade of Absent (ABS), which will be changed only if the student is granted and takes a makeup examination. Unexcused absences are counted as failures (see Final Examinations).

**CR/NCR** CR/NCR is used only for certain cross-registration courses. The grade of Credit represents letter grades from A to D–; the grade of No Credit represents the letter grade of E.

**EXLD** A notation of Excluded (EXLD) indicates that the student was not permitted to continue in the course by vote of the Administrative Board or Honor Council, and received no credit. Exclusion from a course is equivalent in all respects to failing it and in and of itself makes the student's record for the term unsatisfactory.

**EXT** Instructors may allow students extensions of time to complete course work up to the last day of the Examination Period. After that date, only the Administrative Board may grant extensions of time for undergraduates to complete course work. Until the date of extension, the student is given a grade of Extension (EXT). EXT is only a temporary notation; a final grade must be given if the Administrative Board does not grant additional time or, if additional time is granted, upon the expiration of the extension (see Extension of Time for Written or Laboratory Work).

**PA/FL** The grade of Pass represents letter grades of A to D–; the grade of Fail represents the letter grade of E. Certain courses may, with the instructors' permission, be taken on a Pass/Fail basis. Independent Study is always graded PA/FL.

**SAT/UNS** The grade of Satisfactory includes letter grades from A to C–; the grade of Unsatisfactory represents work below C– and is considered a failing grade. No students enrolled in courses graded SAT/UNS may receive letter grades in those courses. The following junior and senior tutorials must be graded SAT/UNS:

African and African American Studies 99a and 99b
Applied Mathematics 99r
Chemistry 91r, 98r, and 99r
Comparative Literature 98a, 98b, 99a, and 99b
English 99r
Folklore and Mythology 99a and 99b
French 99a and 99b
German 99a and 99b
Government 99r
History 99a and 99b
History & Literature 99a and 99b
History of Art and Architecture 99
History of Science 99a, 99b
Italian 99a and 99b
Latin American Studies 99
Linguistics 99a and 99b
Literature 98a, 98b, 99a, and 99b
Mathematics 60r
Portuguese 99a and 99b
Psychology 985, 990a, 990b, 992a, 992b, 993a, and 993b
Religion 99a and 99b
Romance Studies 99a and 99b
Scandinavian 99a and 99b
Slavic 99a and 99b
Social Studies 99a and 99b
Sociology 99a and 99b
South Asian Studies 99

Spanish 99a and 99b
Special Concentrations 99a and 99b
Stem Cell and Regenerative Biology 99a and 99b
Studies of Women, Gender, and Sexuality 99a and 99b

Freshman seminars are always graded SAT/UNS. House Seminars may be graded SAT/UNS at the option of the course instructor and with the approval of the Committee on Freshman Seminars.

Approximately six business days after the end of the final examination period, students can view their final and midyear grades at my.harvard. However, students who complete online evaluations for all courses in which they were enrolled for the term will be provided early online access to their final course grades.

A student may request that the instructor review a grade that has been received and may also ask to consult with the chair of the department or committee of instruction offering the course. However, final authority for the assignment of grades rests with the instructor in charge of the course. Once a grade has been reported to the Registrar, it can be changed only upon the written request of the instructor to the Registrar, acting on behalf of the Dean of Harvard College (or the Dean of the Graduate School in the case of 200- or 300-level courses). The Registrar must be satisfied that all students in the course will have been treated equitably before authorizing any grade change.

Grades of C– or higher, as well as the grades of CR, PA, and SAT, are passing and satisfactory grades. Grades of D+ through D– are passing but unsatisfactory grades. Grades of E, ABS (Absent), NCR (No Credit), FL (Fail), UNS (Unsatisfactory), and EXLD (Excluded) are failing grades.

The grade of INCOMPLETE (INC) cannot under any circumstances be given to undergraduates.

## Grade Point Averages for Undergraduates

The Faculty of Arts and Sciences averages its letter grades with a 4-point scale: A = 4.00, A– = 3.67, B+ = 3.33, B = 3.00, B– = 2.67, C+ = 2.33, C = 2.00, C– = 1.67, D+ = 1.33, D = 1.00, D– = 0.67. E, ABS, NCR, FL, UNS, EXLD = 0. The grade point average is the numerical average of all grades received in letter-graded courses taken under the Faculty of Arts and Sciences for degree credit. In addition, the grade point average includes all failed courses (including failing and unsatisfactory grades in courses taken Pass/Fail and SAT/UNS), courses taken for credit in the Harvard Summer School, and cross-registration courses as appropriate. Passing grades received for courses taken through cross-registration will not be used in computing a student's grade point average except when the courses are counted toward concentration requirements or taken in the Graduate School of Education as part of UTEP (see Cross-Registration). Grades received for course work done out of residence will not be used in computing the grade point average. Grade point averages are calculated on both a cumulative, semesterly, and annual basis. Students of the sophomore, junior, and senior classes in the top 5 percent of their respective classes will be designated John Harvard Scholars, based on the grade point average of the previous academic year (for those enrolled in both semesters the prior year). Students of the sophomore, junior and senior classes in the top 10% of their respective classes who are not designated John Harvard Scholars will be designated Harvard College Scholars.

## Promotion

A student will ordinarily be promoted at the end of any term upon the basis of the number of terms completed or for which credit has been given, as follows:

| | |
|---|---|
| For sophomore standing | 2 terms completed |
| For junior standing | 4 terms completed |
| For senior standing | 6 terms completed |

## Requirements for Honors Degrees

*Summa Cum Laude* in a Field

*Magna Cum Laude* in a Field

*Cum Laude* in a Field

*Cum Laude* for the overall record

All degree candidates must satisfy the requirements of an approved field of concentration and meet all other degree requirements. There are two types of honors in the College: English honors (or departmental honors) are determined by the department, committee, school, or program that oversees the relevant concentration and are based solely on work done in the concentration; Latin honors (or College honors) are based on the entirety of the student record, and recommendations for Latin honors are made to the Governing Boards of the University by the Faculty of Arts and Sciences.

The Faculty of Arts and Sciences recommends bachelor degrees for presentation to the Governing Boards of the University as follows: regular degree; *cum laude* on the basis of the student's overall record; *cum laude* in a field; *magna cum laude* in a field; *magna cum laude* with Highest Honors in a field; or *summa cum laude* in a field. Faculty and concentration standards for honors may change without notice; both sets of standards must be met.

All candidates for degrees with honors must have satisfactory letter grades (C– or higher) in a minimum of 96 letter-graded credits (prorated appropriately for students graduating with fewer than 128 credits passed at Harvard). Grade point averages are based on all completed letter-graded courses taken while at Harvard including all failed courses, courses taken for credit in Harvard Summer School, and by cross-registration only as appropriate (see Grade Point Averages).

The relevant concentration will determine the level of English honors, if any, for an undergraduate who completes the requirements for honors eligibility in that field. If departmental honors are awarded, the student may then be recommended to the College for a determination of Latin honors. Thus, the awarding of departmental honors for work in a concentration is a precondition for the recommendation by the College of Latin honors in a field. It is possible that a student who has completed the relevant requirements for honors in a concentration will have the student's record judged unworthy of honors in the field but still worthy of a degree; such a student may then be recommended by the Faculty of Arts and Sciences for a regular degree, subject to the general regulations, or, if qualified, for the degree *cum laude*. When applicable, both English honors and Latin honors are noted on the official transcript. Only Latin honors are designated on the diploma.

The Faculty will award degrees with honors based on the criteria below:

### *Summa Cum Laude* in a Field

*For the degree summa cum laude the Faculty of Arts and Sciences will consider records of only those students who are designated by their concentration to receive Highest Honors in a field*. The determination of Highest Honors is a serious matter requiring the collective consideration of the faculty affiliated with the concentration. In reaching this decision the faculty may choose to evaluate not only the candidate's grades in concentration courses, but also the level and rigor of those courses, and other indicators of the candidate's mastery of the field, such as performance on a thesis or comparable piece of independent work and/or on a written or oral general examination.

The degree summa cum laude is given to the top 5 percent of the graduating class, drawn from those designated for Highest Honors. The standards of each May will be applied at subsequent degree meetings until the following May.

### *Magna Cum Laude* in a Field

A candidate may be recommended by the Faculty for the degree *magna cum laude* in a concentration or joint concentration provided the student has been designated by the concentration to receive High Honors or Highest Honors. For May degrees, the total number of degrees *summa cum laude* and *magna cum laude* combined will be no more than 20 percent of all May degree candidates. The Faculty will recommend for *magna cum laude* those students with the highest grade point averages who have not already been recommended for the degree *summa cum laude*. Candidates in this category who received Highest Honors from their concentration but were not awarded *summa cum laude* will be recommended for the degree *magna cum laude* with Highest

Honors in a Field. The minimum grade point average that is awarded a degree *magna cum laude* each May will constitute the standard to be applied for that degree at subsequent degree meetings until the following May.

### *Cum Laude* in a Field

A candidate may be recommended by the Faculty for the degree *cum laude* in a concentration or joint concentration provided the student has been designated by the concentration to receive Honors, High Honors, or Highest Honors. For May degrees, the total number of degrees *summa cum laude*, *magna cum laude* and *cum laude* in field sum to 50 percent of all May degree candidates. The Faculty will recommend for *cum laude* in field those students with the highest grade point averages who have not already been awarded the degree *summa cum laude* or *magna cum laude*. The minimum grade point average that is awarded a degree *cum laude* in field each May will constitute the standard to be applied for that degree at subsequent degree meetings until the following May.

### *Cum Laude* for the overall record

A candidate not designated to receive honors in a concentration may be recommended by the Faculty for the degree *cum laude* on the basis of overall grade point average alone if the student's grade point average is at or above the minimum grade point average awarded the degree *magna cum laude*. In any May, if the number of candidates with a sufficient grade point average exceeds 10 percent of all May degree candidates, only those with the highest grade point averages totaling 10 percent of all May degree candidates will be awarded the degree *cum laude* on the basis of overall grade point average alone. The minimum grade point average that is awarded a degree *cum laude* each May will constitute the standard to be applied for that degree at subsequent degree meetings until the following May.

## Prizes

The awarding of prizes at Harvard can be traced back to Edward Hopkins, a London merchant who came to America in 1637. His bequest continues to provide prizes for “Hopeful youth in the way of Learning…for the publick Service of the Country in future times.”

Today, over 200 different prizes are awarded each year in recognition of academic excellence, achievement in a particular field, or outstanding individual qualities. The Bowdoin Prizes, established by the bequest of Governor James Bowdoin, AB 1745, are among many noteworthy prizes for which students submit essays, theses, or other scholarly works.

For more information, including prize descriptions, eligibility requirements, and lists of past winners, please see the website for the Prize Office of the Faculty of Arts and Sciences. Further information is available from the Prize Office, University Hall, Ground Floor (617-495-4780 or prizes@fas.harvard.edu). Information on athletic prizes may be obtained from the Department of Athletics.

### Phi Beta Kappa

Phi Beta Kappa is an academic honors society committed to the promotion of scholarship in the liberal arts and sciences among the students of American colleges. Alpha Iota of Massachusetts at Harvard, founded in 1781, is the oldest chapter of Phi Beta Kappa in continual existence. Undergraduate members, selected from a pool of candidates with the highest cumulative numerical grade point averages in their academic divisions, are elected on the basis of their scholarly achievement and breadth of intellectual interest. Twenty-four juniors are elected each spring, forty-eight seniors are elected each fall, and in the final election, before Commencement, a sufficient number of degree candidates are elected to bring the total membership to no more than ten percent of each graduating class. Students elected to Phi Beta Kappa have typically chosen the most challenging courses available, pursued independent research as part of an honors concentration, achieved excellence in coursework across all academic divisions, and attained outstanding grades in all courses.

The undergraduate members of Alpha Iota, led by four Phi Beta Kappa Marshals, decide on the Phi Beta Kappa awards for teaching excellence given to three members of the Faculty of Arts and Sciences at the Literary Exercises during Commencement Week. The chapter also awards grants for independent research to a number of juniors each spring. For more information see the Harvard College Phi Beta

Kappa website.

## Academic Performance

All students are required to maintain a satisfactory academic record and meet the obligations of the courses in which they are enrolled. Failure to do so will be dealt with as the Faculty and its designated Boards shall determine. In all cases, midyear grades in year-long courses will be considered along with all other grades in the calculations for minimum requirements and satisfactory records.

## Minimum Requirements

To meet the minimum academic requirements in any term, students may have at most one failing grade, which may not be accompanied by another unsatisfactory grade; and at least two satisfactory grades, one of which must be a letter grade in an FAS course taken for degree credit (or in a course taken by cross-registration and counted toward concentration or UTEP requirements). Students who fail to meet the minimum requirements ordinarily will be required to withdraw for two terms, whether or not their previous record was unsatisfactory.

## Satisfactory and Unsatisfactory Academic Records

The requirements for a satisfactory academic record are satisfactory grades in all courses, and at least one letter grade in an FAS course taken for degree credit (or in a course taken by cross-registration and counted toward concentration or UTEP requirements). However, for first-year students in their first term, an academic record will be considered satisfactory if all grades are passing, at most one grade is unsatisfactory, and at least one grade is a satisfactory letter grade. A student whose record is unsatisfactory is ordinarily placed on probation. A student with two consecutive unsatisfactory records ordinarily will be required to withdraw for two terms.

The Administrative Board will have the discretion to consider enrollment in the Harvard Summer School as a term for the purposes of the previous paragraph.

## Exclusion from a Course

A student who neglects any course may, after written warning by the instructor, be excluded from the course by the instructor with the approval of the Administrative Board. The warning should specify the steps the student must take in order to be allowed to continue in the course. A student may also be excluded from a course by the Honor Council if the student has committed academic dishonesty in the course. Exclusion from a course is equivalent in all respects to failing it and in and of itself makes the student's record for the term unsatisfactory. A notation of EXLD (excluded) on the transcript indicates that the student was not permitted to continue in the course and received no credit. Students may not withdraw from a course from which they have been excluded. Students excluded from a course are denied any right to further course evaluation, including final and makeup examinations.

## Submission of Written Work

Students are responsible for ensuring that required written course work is submitted and received on time. Written work should not be left in open mailboxes or other unattended places but rather given personally and directly to the head of the course or to a responsible person acting on the course's behalf. Papers that are mailed to instructors should be sent by certified mail, and a receipt of delivery should be requested from the Postal Service. The student should keep both the postal receipt and a copy of the paper. If work is submitted electronically, students are responsible for confirming receipt.

## Academic Integrity and Academic Dishonesty

Harvard College Honor Code

Plagiarism and Collaboration

Submission of the Same Work to More Than One Course

Tutoring Schools and Term Paper Companies

Official Forms and Petitions

**Harvard College Honor Code**

Members of the Harvard College community commit themselves to producing academic work of integrity – that is, work that adheres to the scholarly and intellectual standards of accurate attribution of sources, appropriate collection and use of data, and transparent acknowledgement of the contribution of others to our ideas, discoveries, interpretations, and conclusions. Cheating on exams or problem sets, plagiarizing or misrepresenting the ideas or language of someone else as one's own, falsifying data, or any other instance of academic dishonesty violates the standards of our community, as well as the standards of the wider world of learning and affairs.

Students will be asked to affirm their awareness of the Honor Code and adherence to the standards of academic integrity at various points during the academic semester. The goal of this affirmation is to reinforce the centrality of scholarly integrity to students' membership in our academic community, as well as to remind students that they have already agreed to adhere to these standards.

The Affirmation will take several forms, depending on the student's status and particular assignments.

*First-Year Students*

> In the summer prior to arriving on campus first-year students will be asked to respond briefly to a prompt about how they will uphold the values of the Honor Code. Students will be able to access their statements throughout their time at Harvard and will have the opportunity to update and revise them periodically.

*All Students*

> During the bi-annual electronic check-in registration process, all students will be asked to read the Honor Code and to sign their name indicating their awareness of the Code and adherence to the standards of academic integrity.
>
> At seated final exams, all students will be asked to read and sign the following statement included on the exam attendance slip or printed on the exam itself: "I attest to the honesty of my academic work and affirm that it conforms to the standards of the Harvard College Honor Code."
>
> On all culminating assignments including final projects, take-home exams, and in-class finals, as well as on senior theses, students will be asked to include a statement of affirmation of the Honor Code at the time of submission. The following text is recommended: "I attest to the honesty of my academic work and affirm that it conforms to the standards of the Harvard College Honor Code."

**Plagiarism and Collaboration**

The College recognizes that the open exchange of ideas plays a vital role in the academic endeavor, as often it is only through discussion with others that one is fully able to process information or to crystallize an elusive concept. Therefore, students generally are encouraged to engage in conversations with their teachers and classmates about their courses, their research, and even their assignments. These kinds of discussions and debates in some ways represent the essence of life in an academic community. And yet, it is important for all scholars to acknowledge clearly when they have relied upon or incorporated the work of others. To ensure the proper use of sources while at the same time recognizing and preserving the importance of the academic dialogue, the Faculty of Arts and Sciences adopted the following policy:

It is expected that all homework assignments, projects, lab reports, papers, theses, and examinations and any other work submitted for academic credit will be the student's own. Students should always take great care to distinguish their own ideas and knowledge from information derived from sources. The term "sources" includes not only primary and secondary material published in print or online, but also information and opinions gained directly from other people. Quotations must be placed properly within quotation marks and must be cited fully. In addition, all paraphrased material must be acknowledged completely. Whenever ideas or facts are derived from a student's reading and research or from a student's own writings, the sources must be indicated (see also Submission of the Same Work to More Than One Course below.)

Students must also comply with the policy on collaboration established for each course, as set forth in the course syllabus or on the course website. Policies vary among the many fields and disciplines in the College, and may even vary for particular assignments within a course. Unless otherwise stated on the syllabus or website, when collaboration is permitted within a course students must acknowledge any collaboration and its extent in all submitted work; however, students need not acknowledge discussion with others of general approaches to the assignment or assistance with proofreading. If the syllabus or website does not include a policy on collaboration, students may assume that collaboration in the completion of assignments is permitted. Collaboration in the completion of examinations is always prohibited.

The responsibility for learning the proper forms of citation lies with the individual student. Students are expected to be familiar with the *Harvard Guide to Using Sources*. Students who are in any doubt about the preparation of academic work should consult their instructor and Resident Dean before the work is prepared or submitted.

Students who, for whatever reason, submit work either not their own or without clear attribution to its sources will be subject to disciplinary action, up to and including requirement to withdraw from the College. Students who have been found responsible for any violation of these standards will not be permitted to submit a course evaluation of the course in which the infraction occurred.

**Submission of the Same Work to More Than One Course**

It is the expectation of every course that all work submitted for a course or for any other academic purpose will have been done solely for that course or for that purpose. If the same or similar work is to be submitted to any other course or used for any other academic purpose within the College, the prior written permission of the instructor must be obtained. If the same or similar work is to be submitted to more than one course or used for more than one academic purpose within the College during the same term, the prior written permission of all instructors involved must be obtained. A student who submits the same or similar work to more than one course or for more than one academic purpose within the College without such prior permission is subject to disciplinary action, up to and including requirement to withdraw from the College.

Students are urged to consult their Resident Dean or the instructors involved with questions concerning this important matter (see also Plagiarism and Collaboration above).

**Tutoring Schools and Term Paper Companies**

In keeping with the principle that all material submitted to a course should be the student's own work, any undergraduate who makes use of the services of a commercial tutoring school or term paper company is liable to disciplinary action. Students who sell lecture or reading notes, papers, or translations, or who are employed by a tutoring school or term paper company, are similarly liable and may be subject to disciplinary action, up to and including requirement to withdraw from the College. If a student wishes to accept compensation for private tutoring in Harvard courses, prior written permission of the Dean of the College is required.

**Official Forms and Petitions**

Students should understand that providing false or misleading information or signing any other person's name or initials on a Plan of Study, change-of-course petition, registration form, or on any other official form or petition (hard copy or electronic) will make them subject to disciplinary action, up to and including requirement to withdraw.

## Attendance, Absences, Reading Period, Examinations and Extensions

Regarding attendance in class and for examinations, Massachusetts law provides as follows:

> Any student in an educational or vocational training institution, other than a religious or denominational educational or vocational training institution, who is unable, because of his religious beliefs, to attend classes or to participate in any examination, study, or work requirement on a particular day shall be excused from any such examination or study or work requirement, and

shall be provided with an opportunity to make up such examination, study, or work requirement which he may have missed because of such absence on a particular day; provided, however, that such makeup examination or work shall not create an unreasonable burden upon such school. No fees of any kind shall be charged by the institution for making available to the said student such opportunity. No adverse or prejudicial effects shall result to any student because of his availing himself of the provisions of this section.

[Massachusetts General Laws, Chapter 151C: § 2B)]

## Attendance

Regular attendance at course meetings and related events is expected of all students. Furthermore, students are expected to remain in the immediate vicinity of Cambridge during the Examination Periods, Reading Periods, and term time with the exception of scheduled vacations and holidays. Students may not be absent from the area for extended periods of time during the term without the permission of their Resident Dean.

A student on probation is required to attend all academic exercises. Unexcused absence by a student on probation renders the student liable to requirement to withdraw from the College at any time.

By vote of the Faculty of Arts and Sciences instructors are required to hold their regular classes on the days preceding and following holidays and vacations. They are not permitted to allow temporary transfer of students from section to section or to excuse students at these times.

**Restricted Attendance**

With the exception of the first week of classes, when any registered student may attend a class, only students enrolled in a course and auditors who have been given specific permission by the instructor ordinarily may attend course meetings. From time to time, instructors may permit other guests, such as colleagues, parents, alumnae/i, or prospective students, to attend individual class meetings; however, instructors are always free to restrict attendance at a class meeting or meetings to regularly enrolled students and authorized auditors.

## Absence from Classes

Students should report all absences that may have a significant effect on their status to their Resident Dean and to the instructor(s) of the course(s) concerned. Students who are called away in an emergency or are otherwise unavoidably absent from the College should notify their Resident Dean both before departure and upon return. Absence from the College without such notification may lead to requirement to withdraw. Students who are sick may consult Harvard University Health Services, CAMHS, or their own physician, but should report all cases of serious illness promptly to Harvard University Health Services either in person or by telephone (617-495-5711).

Absence from academic exercises, for whatever reason, including representing the College in extracurricular and athletic activities, does not relieve students from responsibility for any part of the work in the course required during the period of absence.

## Storm and Emergency Conditions

The Faculty of Arts and Sciences rarely cancels classes due to weather. However, the faculty and section leaders who need to commute should not put themselves in danger during serious storms, and may choose to cancel their individual classes. Students may find the following information helpful:

- For the most part, undergraduate students are in residence and are expected to attend classes. Undergraduate students who decide that they cannot make it to class should consult the course materials for instructions on informing the course's instructional staff of planned absences from class. If such procedures have not been provided, then the student should inform the instructor or the teaching fellow of the planned absence by email or by telephone.

- Similarly, students may find instructions in the course materials that indicate how the instructional staff would inform students of the cancellation of a class or section meeting. For example, many courses inform students of the cancellation via an announcement posted on the course webpage, via an email to the class attendees, or by leaving a message on the voice mail system of a centralized departmental telephone.
- FAS offices and academic departments will be open depending on staff availability and whether there are critical functions in progress. Call the central number for that office before going there.
- Final examinations and makeup examinations are rarely cancelled and students should report to their exam rooms on time.
- On the very rare occasion when FAS decides to cancel classes, an announcement of the cancellation will be posted at the College home page.

## Hour and Midterm Examinations

The administration of hour and midterm examinations (not midyear) is the responsibility of the instructor; ordinarily, such exams should be scheduled during regular class meeting times. In accordance with Massachusetts law, students who are unable to participate in an hour or midterm examination as a consequence of their religious beliefs shall be provided with an opportunity to make up the examination, without penalty, provided that the makeup examination does not create an unreasonable burden on the College. It is the responsibility of the students concerned to provide instructors with the dates on which they will be absent because of a conflict with the religious holidays they will be observing.

If an instructor is satisfied that an absence for a reason other than religious observation is necessary and that omitting a grade for the missed hour or midterm examination will not affect the student's course grade, final evaluation of the student's work in the course may be determined from the remainder of the course work. The instructor may also elect to give a makeup examination. The responsibility for such decisions rests with the instructor only, and not with the Dean's Office or the Administrative Board.

Although instructors are obligated to offer makeup exams only in the case of absence for the observance of a religious holiday, students who have obtained proper Harvard University Health Services (HUHS) documentation of illness may not be penalized for their absence from hour and midterm examinations. The appropriate form must be signed by a HUHS medical professional and given to the student's Resident Dean, who will write the student a letter that acknowledges receipt of the HUHS form. This letter may be presented to the instructor as certification of the student's illness.

## Reading Period

At the end of each term, a period of six or seven days prior to the start of final examinations is designated as Reading Period. Reading Period is intended to be a time for students to reflect, review, and synthesize what they have learned during the semester.

In order to protect this educational purpose, the following rules apply during Reading Period:

- With the exception of designated intensive language courses, no regular instruction may take place during Reading Period. Sections and review sessions may take place during Reading Period as may class sessions that must be made up due to weather or other emergencies.
- Courses may not assign new material during Reading Period.
- All seated final examinations, of whatever duration (up to three hours) or scope, must take place during the exam slot as assigned by the Office of the Registrar. (See also Final Examination Period.)
- Final papers, take-home exams, projects, presentations, and other culminating course assignments due after the end of regular classes must be due on or before the day of each course's assigned Examination Group, but no earlier than the fourth day of Reading Period. Final projects that include individual or group presentations may be scheduled beginning on the fourth day of Reading Period and may extend through the Final Examination and Project Period.*
- Short, regular assignments that address material covered in the last two weeks of classes (such as problem sets or response papers) may be due during the first three days of Reading

Period.

Regardless of whether a class meets during Reading Period, that time is an integral part of the term. Students are expected to remain in the immediate vicinity of Cambridge throughout this period.

*Each course will be assigned an exam/final deadline group in order to spread out student deadlines and to establish grading due dates. While instructors may establish earlier deadlines per faculty legislation, the spirit of this legislation is to spread students' final assignment deadlines across the entire exam period to avoid having all assignments due at the same time. If an instructor decides to use an earlier deadline it is very important that students are well informed about this change from the posted deadline.

# Final Examination Period

Examination Rules

Late Arrival to Examination

Illnesses During the Examination

Absence from Examinations

Absences for Religious Reasons

Makeups for Examinations: Excused Absences

Examinations in Absentia

Courses that will culminate in a seated final examination scheduled by the Registrar will hold their exams during the designated Final Examination Period. Examinations scheduled during the Final Examination Period are three hours in length. There are two exam sessions each day. Morning exams begin at 9 am and afternoon exams begin at 2 pm. The schedule indicating the exact date, time and location for each three-hour, seated exam is posted online within approximately three weeks of the start of each term. The posted schedule is subject to change.

To seek accommodations for a final exam on account of disabilities, undergraduates must connect in advance with the Accessible Education Office. The Accessible Education Office will work with the faculty member and the Exams Office to make arrangements for accommodations when appropriate and will contact the student directly about the accommodations. For more specific information about final exam accommodations please consult the website of the Accessible Education Office.

Students are responsible for learning the times and locations of exams in their courses and for arriving at their exams on time. Students who miss an exam and who are not granted a makeup exam will receive a permanent ABS (unexcused absence), which is equivalent in all respects to a failing grade.

Most instructors return examination booklets, papers, and other academic work to the students enrolled in their courses. By law, students have the right to review all materials submitted to a course, including final examination booklets, and for a reasonable charge may have copies of any originals not returned to them within 45 days of the date of the original request.

**Examination Rules**

Students should adhere to the following rules during the administration of regularly scheduled midyear or final examinations.

- During bathroom breaks, students should not use computers, telephones (land line or cellular), tablets, or other communications devices.
- In order to avoid any possible suggestion of improper behavior during an examination, undergraduates should refrain from communication with other students while an exam is in progress.
- Students should also not retain or refer to any books or papers during an examination except with the express permission of the instructor or teaching staff.
- Eating and drinking are not permitted in any examination room.

- Personal belongings should be put away and all mobile phones and other electronic devices should be turned off.
- In the event of a fire, students should take their personal belongings and their exam and booklets and meet in the location announced at the beginning of the exam. Students should not leave the exam site or the emergency meeting location with any exam materials, nor should they discuss the exam with other students during the emergency procedures. For violation of the examination rules or dishonesty in an examination a student may be required to withdraw from the College. Students who fail to obey instructions are liable to disciplinary action.

**Late Arrival to Examination**

A student who is late for an exam may be refused admission and reported as absent. Students who are late for a final exam should report directly to the exam room. No one will be admitted to an examination more than 30 minutes after the start of the exam. Ordinarily, latecomers will not be allowed to make up lost time.

**Illnesses During the Examination**

A student who is present for any part of an examination is never entitled to a makeup exam. Any student who becomes ill during an exam, however, should report the illness immediately to the instructor. An ill student will be sent to HUHS, where the student will be kept incommunicado until able to resume the examination. Upon resumption of the examination, the student will be allowed only the balance of time remaining.

**Absence from Examinations**

To obtain credit for a semester-long course having a final examination, a student must have attended the examination (or its equivalent approved makeup). To obtain credit for a year-long course having fall term and spring term examinations, a student must have attended both exams (or equivalent approved makeup). A student who is absent without excuse from the final examination (or the equivalent approved makeup) of a year-long course fails the entire course and receives no credit for either half of it.

Any student who has an unexcused absence at the fall term final exam in a year-long course must either petition to withdraw from the course without credit (no later than the seventh Monday of the spring term) or petition to be allowed to continue in it in the spring term for half credit only, in which case the failing grade of ABS is permanently recorded for the fall half of the course (see Year-long Courses).

A student may petition for a makeup examination because of illness only if the illness is documented by medical staff at HUHS within the 24-hour period before the beginning of the examination. In an emergency, a student's illness could be reported to HUHS by a private physician, before the beginning of the examination. The private physician must also supply a written statement to HUHS.

Unavoidable absence from an examination resulting from causes other than illness should be reported and explained in advance to the appropriate Resident Dean.

A student whose record is unsatisfactory because of an unexcused absence from a final or makeup examination ordinarily will be placed on probation or, if the record as a whole so warrants, required to withdraw (see Procedures of the Administrative Board).

**Absences for Religious Reasons**

As mentioned above regarding attendance and examinations, in accordance with Massachusetts law, students who are unable to participate in a final examination as a consequence of their religious beliefs shall be provided with an opportunity to make up the examination, without penalty, provided that the makeup examination does not create an unreasonable burden on the College. Students who anticipate any religious conflicts with exams are required to submit the Religious Out of Sequence Exam Request Form on the Registrar's website, thirty days before the start of Exam Period. Conflicts reported after that time may not be possible to accommodate or may result in a makeup exam scheduled for the following term.

**Makeups for Examinations: Excused Absences**

The Administrative Board has jurisdiction over granting makeup examinations. **No instructor may grant or give a makeup examination to any student who missed a final examination without the express authorization of the Registrar and the Administrative Board; nor may a makeup examination be given at any time or place other than that specified by the Registrar.** A student granted a makeup exam is not thereby granted an extension of time to complete other written work for the course. Such an extension is granted only by special vote of the Administrative Board (see Extension of Time for Written or Laboratory Work).

Petitions for makeup exams are due in the office of the Resident Dean as soon as possible and no later than one week after each examination. Students having a medical excuse will fill out the petition form at HUHS and take the form personally and directly to the Resident Dean. Students wishing to be excused for other reasons should see their Resident Dean.

A student whose petition for a makeup examination has been granted by the Administrative Board must take the makeup examination at the next regularly scheduled makeup period. Typically, the makeup period is the third week of the following term. No other opportunity to take the examination will be allowed. It is the student's responsibility to learn exactly when and where the makeup examinations will be given.

The beginning dates for fall and spring term Makeup Examination Periods are listed in the Academic Calendar. The Registrar notifies students via email who have been granted permission to take one or more makeup exams. The email notification specifies the scheduled time and place of their makeup examination(s). If students do not receive an email notification about a makeup exam, it is their responsibility to obtain such information from the Registrar at least two weeks before the beginning of the makeup Examination Period.

Students who have been granted a makeup exam by the Administrative Board but have neither taken it nor canceled it in writing to the Registrar with a copy to the Resident Dean at least one week in advance of the beginning of the Makeup Examination Period will ordinarily be admonished by the Administrative Board. Students who have missed a final exam and have not been granted permission for a makeup will be given the failing grade of "Absent" (ABS) for the course and are thus eligible to be placed on probation or required to withdraw, depending on their academic record for the term.

Students granted makeup examinations and/or extensions of time beyond the end of the Examination Period in two or more courses will not be allowed to register for the next term except by special permission of the Administrative Board. Students granted a makeup examination are not eligible to receive the degree until after final grades have been reported for all of their courses.

**Examinations in Absentia**

In exceptional cases, students who cannot be in Cambridge at the time of a final or makeup examination may request permission from the Administrative Board to take the examination in absentia. Applications are available from the Registrar.

Petitions for in absentia exams from members of Harvard College varsity athletic teams participating in tournament competitions and students who are either on leave or studying elsewhere for Harvard degree credit may be approved by the Registrar. Other requests require permission of the Administrative Board. Before petitioning to take an examination in absentia, students should consult their Resident Dean.

Students are responsible for any fees incurred in the administration of an in absentia examination, including proctoring fees, postage, and any extraordinary costs incurred in the delivery or administration thereof (room rentals, media rentals, etc.).

## Extension of Time for Written or Laboratory Work

Students who encounter unexpected difficulties in completing their work should immediately consult their Resident Dean.

Extensions of time up to the end of the Examination Period may be granted by the instructor. Ordinarily, the student must have received the consent of the instructor before the final examination (or before the final meeting of a course in which there is no final examination). No instructor may accept work from a student in any term after the end of the Examination Period without the express authorization of the

Administrative Board.

An extension of time beyond the end of the Examination Period can be granted only by vote of the Administrative Board and only in exceptional circumstances. A student who, for medical reasons, fails during any term to complete the required work in a course, including laboratories, problem sets, or papers, may petition the Administrative Board through the Resident Dean for an extension of time commensurate with the time missed to make up the work.

Students granted extensions of time beyond the end of the Examination Period and/or makeup examinations in two or more courses will not be allowed to register for the next term except by special permission of the Administrative Board. Students granted an extension of time are not eligible to receive the degree until after final grades have been reported for all of their courses.

The notation “Incomplete” (INC), used in the grading of graduate students, cannot under any circumstances be given to undergraduates. In those cases where the Administrative Board has in advance voted approval of an extension of time, the temporary notation EXT will be made for the duration of the extension voted by the Administrative Board. EXT is only a temporary notation; a final grade must be given upon the expiration of the extension as approved by the Administrative Board or if additional time is not granted by the Administrative Board.

## Leaves of Absence

Voluntary Leaves of Absence (Granted by Petition)

Involuntary Leaves of Absence

While on Leave of Absence

Use of College Services and Facilities

Course Work Done Out of Residence

Returning to College

**Voluntary Leaves of Absence (Granted by Petition)**

Students who wish to interrupt their studies at any time before graduation must petition the Administrative Board for a leave of absence. To petition the Board, the student and the student's Resident Dean work together to determine what pertinent information to present to the Board with the petition, and then the Resident Dean brings the petition to the Board on the student’s behalf. With respect to a voluntary leave of absence for medical reasons, the Dean of the College may consult with Harvard University Health Services (which may consider information from the student’s current and/or former health care providers, if made available by the student). Following an individualized assessment, for students on a medical leave of absence, the College may set out specific expectations for them to meet before they may return to the College with the goal of ensuring their readiness to return. It is often useful for students to have a conversation with their Resident Dean about how to approach these expectations.

Students whose previous academic and disciplinary record is satisfactory and who have petitioned by the seventh Monday of the term will normally be granted a “leave of absence.” Students who petition after the seventh Monday of the term will normally be granted a “leave of absence—late in the term.” Students who are not in good standing may be granted a “leave of absence—on probation.” Students who petition for a leave of absence after the tenth Monday of the term ordinarily will not be allowed to register in the next academic term. No petitions for a leave of absence for any term will ordinarily be considered after the first day of Reading Period for that term.

Students going on leave are reminded that all degree candidates, whether currently registered or not, are expected to maintain a satisfactory standard of conduct.

**Involuntary Leaves of Absence**

Under certain circumstances, a student may be placed on an involuntary leave of absence. An

involuntary leave of absence is not a disciplinary sanction. However, an incident that gives rise to a leave of absence, whether voluntary or involuntary, may subsequently be the basis for disciplinary action. A student who wishes to take a voluntary leave of absence rather than being placed on involuntary leave of absence will ordinarily be allowed to do so. Transcripts do not distinguish between voluntary and involuntary leaves of absence. As is the case for voluntary leaves, official College letters of recommendation will note any unresolved disciplinary matter that is pending (see Administrative Board Actions and Letters of Recommendation).

An involuntary leave of absence may be required for the following reasons:

1. Medical circumstances: (a) The student's behavior poses a direct threat to the health or safety of any person, or has seriously disrupted others in the student's residential community or academic environment; and (b) either the student's threatening, self-destructive, or disruptive behavior is determined to be the result of a medical condition or the student has refused to cooperate with efforts by Harvard University Health Services to determine or evaluate the cause of the behavior. The decision to place a student on an involuntary leave of absence for health related reasons is made in consultation with Harvard University Health Services (which may consider information from the student's current and/or former health care providers, if made available by the student), after an individualized assessment of all of the pertinent factors, such as: the nature of the student's conduct; the nature, duration and severity of the risk; the likelihood of potential injury; and whether reasonable modifications of policies, practices or procedures will mitigate the risk. However, reasonable modifications do not include changes that would fundamentally alter the academic program or unduly burden the College's resources or staffing capabilities or, with respect to the required level of care or monitoring, that would exceed the standard of care that a university health service or the staff of a residential college can be expected to provide.
2. Alleged criminal behavior: The student has been arrested on allegations of serious criminal behavior or has been charged with such behavior by law enforcement authorities.
3. Risk to the community. The student allegedly violated a disciplinary rule of the College, and the student's presence on campus poses a significant risk to the safety of others or to the educational environment of the community.
4. Indebtedness. The student's term bill is unpaid and the student has not made arrangements acceptable to the College to address the issue.
5. Failure to provide medical documentation of required immunizations.
6. Unfulfilled academic requirements. The student has not met an academic requirement and has not taken steps acceptable to the College to meet the requirement.
7. Failure to register and enroll. The student has not registered and enrolled in courses as required at the beginning of each term.
8. Courses not completed: The student has been granted make-up examinations, or extensions of time beyond the end of the term, in two or more courses.

Prior to placing a student on involuntary leave of absence, the Dean of Harvard College will consult with the student's Resident Dean and, as appropriate, with other officers of the University (for example, with the office of the Director of Harvard University Health Services in the case of leave for medical reasons) or with the Administrative Board.

Students will be notified in writing of the decision to place them on involuntary leave of absence. The student may ask the Dean or the Dean's delegate, in writing or in person, to reconsider the decision. If the decision remains unchanged, the student may petition the Administrative Board through the student's Resident Dean.

Students on involuntary leave are reminded that all degree candidates, whether currently registered or not, are expected to maintain a satisfactory standard of conduct.

**While On Leave of Absence**

Students who are granted a leave of absence during the academic year are charged tuition, room rent, the Student Services Fee, and board to the end of the period in which they leave, as indicated on the chart Students' Financial Obligations in the Event of a Leave of Absence or Requirement to Withdraw and in Housing Policies and Deadlines. Students who have been placed on involuntary leave of absence are subject to the same rules regarding financial aid and financial obligations (room, board, tuition, etc.) that apply to undergraduates granted a voluntary leave of absence.

Students who have signed a room contract to live in College housing and subsequently decide to take a leave of absence must notify the Dean of Students Office - Housing and Residential Life, in writing of their intention not to take up residence. The purpose of this policy is to enable Houses to make unoccupied rooms available to other students as early as possible (for deadlines, see Housing Policies and Deadlines).

All undergraduates going on leave before the end of a term must submit the proper paperwork to their House Office or the Dean of Students Office. Cancellation of board charges is contingent upon the submission of the form; failure to do so will result in a continued assessment of board charges until the end of the term in which the leave occurs. A student granted a leave is expected to vacate University property as soon as possible and no later than five business days after the date of the Administrative Board vote granting the leave. The room key must also be turned in to the House Office or building manager's office. Students who are on leave may not store any belongings at the University.

Students receiving scholarship or other financial aid should consult the Griffin Financial Aid Office concerning the financial implications of going on leave. Prior to leaving Cambridge those who have borrowed money or received financial aid from Harvard must also have an exit interview at the Griffin Financial Aid Office, 86 Brattle Street. For detailed information see the Financial Aid Office website policies and procedures for Leave of Absence. Students with additional questions or concerns should contact the FAO at 617-495-1581 or faoinfo@fas.harvard.edu. Students who receive veteran's educational benefits should report to Smith Campus Center 953. Foreign students should consult the International Office concerning their status.

The date a student goes on leave will affect the student's health insurance through Harvard. For details, review the Leave of Absence policy on the HUSHP website, or contact the Student Health Insurance Office, Member Services, at 617-495-2008 or mservices@huhs.harvard.edu.

Students leaving after completion of the fall term should consult the section Year-Long Courses and their Resident Dean concerning dividing or withdrawing from any year-long courses in which they were enrolled.

Students should update their addresses at my.harvard.

Students who have competed on an intercollegiate team or intend to compete on one for the first time upon their return should arrange for an "exit interview" with the Associate Director of Athletics in charge of eligibility before leaving Cambridge.

**Use of College Services and Facilities**

Libraries and other facilities may normally be used only by students who are currently registered. Students on leave or required to withdraw may not participate in extracurricular activities. Exceptions to this rule must be specifically approved in advance by the Administrative Board. The student on involuntary leave may not participate in student activities until officially allowed to register. If so instructed by the Dean of the College or the Administrative Board, a student on leave must remain away from the University campus.

Students are encouraged to consult the Office of Career Services, which may be able to assist them in making plans for their time away from the College. Students who have been granted a leave of absence or have been required to withdraw or placed on involuntary leave may at any time consult their Resident Dean.

Students in good standing who are on a voluntary leave of absence may be permitted to apply for Harvard funding, including but not limited to summer grants, provided that they have obtained the Administrative Board's prior approval. In making this determination, the Administrative Board will consider the relevant circumstances, including, for example, the circumstances that led to the student's leave of absence.

**Course Work Done Out of Residence**

Students in good standing (see Actions of the Administrative Board) who are granted a leave of absence and who wish to enroll in courses given by another institution for Harvard degree credit should consult Procedures for Earning Degree Credit for Study Abroad. To be granted degree credit for course work

done out of residence, a student must apply to the Office of International Education before study begins. Any student who has received a bachelor's degree from another institution is not eligible to enroll or re-enroll in Harvard College as an undergraduate.

**Returning to College**

Students in good standing who have been granted a leave of absence may ordinarily return for any term they wish by notifying the Resident Dean twelve weeks in advance of that term. Ordinarily, first-year students taking a leave of absence at any point during their first term will not be allowed to register before the fall term of the next academic year.

A student who has been granted a "leave of absence—late in the term" or a "leave of absence—on probation" must petition the Administrative Board for permission to register and must demonstrate that the circumstances that led to their leave have been satisfactorily addressed and that they are ready to resume their studies. The decision whether to allow a student to return is made by the Administrative Board. Students placed on involuntary leaves of absence must petition the Administrative Board for permission to return and must demonstrate that the circumstances that led to their leave have been satisfactorily addressed and that they are ready to resume their studies. The decision whether to allow a student to return is made by the Administrative Board.

If the leave, whether voluntary or involuntary, was for medical reasons, then the student must petition the Administrative Board for permission to register and must demonstrate that the circumstances that led to their leave have been satisfactorily addressed and that they are ready to resume their studies. In addition, so that the College may conduct an individualized assessment of their circumstances, students on medical leave ordinarily will be required to consult with Harvard University Health Services (and to grant permission to Harvard University Health Services to obtain their treatment records and communicate with their treatment providers) so that a professional assessment about the student's stability and readiness to return can be shared with the College, including the student's participation and progress with appropriate health care providers during their time away. *Evidence of stability must include a written statement describing how the student's time away has been spent and often includes a substantial period of regular employment at a non-academic job and a suitable letter of recommendation from the employer or employment supervisor.* Please also note that if the College learns of serious concerns about the health or well-being of a student who is away from the College but not on a leave of absence, or is on a leave of absence that is not a medical leave of absence, then the College similarly may require the student to consult with Harvard University Health Services (and to grant permission to Harvard University Health Services to obtain their treatment records and communicate with their treatment providers) so that a professional assessment about the student's stability and readiness to return can be shared with the College. In all such cases, the decision whether to allow a student to return involves an individualized assessment made by the Administrative Board, which may condition the student's return on an agreement to engage in ongoing medical treatment, if such treatment has been recommended by Harvard University Health Services.

Any disciplinary matter must be resolved before a student on leave of absence will be allowed to return and, if the student has been required to withdraw while on leave of absence, then any conditions for return after a required withdrawal (see Readmission after Requirement to Withdraw) also must be satisfied for the student to be readmitted.

The Administrative Board ordinarily will not approve the return of a student for the fall term whose experience in the Harvard Summer School in the previous summer has been unsuccessful or unsatisfactory.

All students intending to return to the College must obtain a Returning Student Housing Application from Housing and Residential Life, Dean of Students Office, 6 Prescott Street. These applications are due quite early in the preceding term in order to permit the College to provide housing for as many students as possible (see Housing Policies and Deadlines and the Academic Calendar for application deadlines and other information).

Students who do not file the Returning Student Housing Application by the appropriate deadline will be housed on a space-available basis only. Students denied housing on this basis can reestablish eligibility for guaranteed housing by living off-campus for two terms while enrolled and by filing a Returning Student Housing Application before the appropriate deadline. Students whose leaves have extended beyond two years are not guaranteed on-campus housing upon their return to the College but will be

housed on a space-available basis (see Those Who Will Ordinarily Be Housed and Those Who Will be Housed On a Space-Available Basis Only).

A student who has filed a Returning Student Housing Application for one term but subsequently decides to return for the following term instead must submit a new application for that following term or request of the Housing and Residential Life, Dean of Students Office, in writing, that the initial application be reactivated.

Students returning from a leave who wish to apply for financial aid must notify the College Griffin Financial Aid Office at 617-495-1581 (or at faoinfo@fas.harvard.edu) by February 1 for the following fall term and by October 1 for the following spring term) and file the necessary application forms (see: the Griffin Financial Aid Office website). Students do not have to be approved to return before submitting their aid application. If a student has taken a leave in the middle of a term and used a portion of their financial aid eligibility, they will need to petition the Financial Aid Committee to be considered for a full semester's worth of eligibility for their final term. Late applicants cannot be assured that their aid will be available in time for registration payment deadlines.

Students who have been granted a leave and who have borrowed money through Harvard must submit an annual loan deferment form to the Student Loan Office upon their return to Harvard. Deferment forms may be obtained through either the Student Loan Office or the Griffin Financial Aid Office and must be completed and certified by the Registrar immediately following Check-in and Course Registration. Failure to file a deferment form upon return will cause payments to be due on loans and could affect future borrowing eligibility.

A student will not be allowed to register in the University again until all previous term-bill and telephone charges have been paid and no loan is in default.

Students who have been away from the College for five or more years must petition the Administrative Board for permission to register. Those planning to return to the College after a period of five or more years will ordinarily not be eligible for scholarship aid from institutional sources. Petitions for readmission after an interval of five or more years must include evidence of financial resources necessary to meet all College expenses. Exceptions due to unusual circumstances will be considered by the Committee on Financial Aid with input from the Administrative Board. Petitions for an exception should be made through the Griffin Financial Aid Office.

# Education Records

Education Records

Access

Directory Information

Other Disclosures Permitted under FERPA

Student Rights Under FERPA

Users Located in the European Economic Area

The Family Educational Rights and Privacy Act of 1974, as amended ("FERPA") is a federal law that gives students certain rights with respect to their education records.

**Education Records**

Harvard's Faculty of Arts & Sciences (FAS), which includes both Harvard College and the Graduate School of Arts and Sciences, routinely maintains records for its students that describe and document their work and progress. These education records generally include records such as permanent and local addresses, admissions records, enrollment status, course grades, reports and evaluations, completion of requirements and progress toward the degree, records of disciplinary actions, letters of recommendation, and other correspondence with or concerning the student.

**Access**

To be useful, students' records must be accurate and complete. The officials who maintain them are those in charge of the functions reflected in the records and the offices where the records are kept. These ordinarily include the Registrar of FAS, as well as certain officers of the Graduate School of Arts and Sciences and Harvard College, including, for example, the Divisional Deans, the Chairs of academic departments and/or concentration committees, the Director of Admissions, the Dean of Students, the Resident Deans, and the Head Tutors or Directors of Undergraduate Studies. All students have access to their own education records and may contribute to them if they feel there is need for clarification. Students wishing access to their education records should contact the FAS Registrar's Office. Ordinarily, students are asked to submit a written request that identifies the specific record or records they wish to inspect. Access will be given within 45 days from the receipt of the request. When a record contains information about more than one student, the student requesting access may inspect and review only the portion of the record relating to themselves. Students also are not permitted to view letters and statements of recommendation to which they waived their right of access, or that were placed in their file before January 1, 1975.

Students should direct any questions they have about the accuracy of records to the person in charge of the office where the records are kept. If questions still remain, the matter may be referred to the Associate Registrar for Operations in the FAS Registrar's Office. Should it be necessary, a hearing may be held to resolve challenges concerning the accuracy of records in those cases where informal discussions have not satisfactorily settled the questions raised.

**Directory Information**

The Faculty of Arts & Sciences regards the following information as "directory information," that is, information that, under FERPA, can be made available to the general public: full name, reported date of birth, dates of attendance, concentration, class year, digitized image (please note that while Harvard classifies photos and images as directory information, these are rarely released to parties outside the University without the student's permission), local or campus residence address and telephone number, university email address, secondary school (for College students), undergraduate college (for GSAS students), home town or city at the time the application for admission was filed by the student, original class at time of matriculation, degree candidate status, date of graduation (actual or expected), degree(s) received with field of concentration and level of honors granted (if any), department of study, University prizes, fellowships, and similar honors awarded, and, in certain cases, students' and parents' or guardians' home addresses and telephone numbers. For student employees: job title, teaching appointment (if applicable), employing department and dates of employment. For Harvard College, "directory information" also includes: House affiliation, and height and weight of members of athletic teams. Please note that Harvard University's definition of "directory information," found at [http://provost.harvard.edu/files/provost/files/ferpa_overview.pdf] may include elements in addition to those used by FAS, and that requests for directory information received at the University level thus may result in disclosure of such additional elements.

Students may direct FAS not to disclose their directory information, usually known as putting in place a "FERPA Block." To do so, a student must inform the FAS Registrar's Office in person, and sign a form requesting that the information be blocked. Students should be aware of the possible consequences of putting in place a FERPA Block, such as missed mailings, messages, and announcements, non-verification of enrollment or degree status, and non-inclusion in the Harvard Commencement booklet. Students who have previously chosen to put in place a FERPA Block may decide to reverse this decision, also by informing the FAS Registrar's Office in writing.

**Other Disclosures permitted under FERPA**

Parents or legal guardians of students are ordinarily informed of important changes of status, such as leaves of absence, probation, and requirement to withdraw. Under certain extenuating circumstances, a student may request an exception to this rule.

In addition to permitting the disclosure of directory information, as set forth above, FERPA permits disclosure of educational records without a student's knowledge or consent under certain circumstances. For example, disclosure is permitted to Harvard officials with a legitimate educational interest in the records, meaning that the person needs the information in order to fulfill their professional responsibilities, including instructional, supervisory, advisory, administrative, academic or research, staff support or other duties. "Harvard officials" include: faculty; administrators; clerical employees; professional employees; Harvard University Health Services staff members; Harvard University Police

Department officers; agents of the University, such as independent contractors performing functions on behalf of FAS or the University; members of Harvard's governing boards; and students serving on an official FAS, College, GSAS or University committee, or assisting another Harvard official in performing their tasks. A student's education record also may be shared with parties outside the University under certain conditions, including, for example, in situations involving a health and safety emergency. In addition, the FAS Registrar's Office will forward a student's education records to other agencies or institutions that have requested the records and in which the student seeks or intends to enroll or is already enrolled so long as the disclosure is for purposes related to the student's enrollment or transfer.

If either Harvard College or the Graduate School of Arts and Sciences finds that a student has committed a disciplinary violation involving a crime of violence or a non-forcible sex offense, then FAS also may, if legally permitted and appropriate in the judgment of Harvard College or the Graduate School of Arts and Sciences, disclose certain information about the disciplinary case. The disclosure may include the student's name, the violation committed, and the sanction imposed.

**Student Rights under FERPA**

As set forth above, under both Harvard policy and FERPA, students and former students may inspect and review certain of their education records that are maintained by Harvard. They also have the right to: exercise limited control over other people's access to their education records; seek to correct their education records if they believe them to be inaccurate, misleading or otherwise in violation of their FERPA rights; file a complaint with the U.S. Department of Education if they believe Harvard has not complied with the requirements of FERPA; and be fully informed of their rights under FERPA. Complaints regarding alleged violation of rights of students under FERPA may be submitted in writing within 180 days to the Family Policy Compliance Office, US Department of Education, 400 Maryland Avenue, S.W., Washington, DC 20202-5920.

**Users Located in the European Economic Area**

If you are located in the European Union, Iceland, Liechtenstein or Norway (the "European Economic Area"), please click here for additional information about ways that certain Harvard University Schools, Centers, units and controlled entities, including this one, may collect, use, and share information about you.

# General Regulations

Conduct Within the Community

Standards of Conduct in the Harvard Community

The Administrative Board of Harvard College, The Harvard College Honor Council and the Student-Faculty Judicial Board

# Conduct Within the Community

A fundamental goal of the College is to foster an environment in which its members may live and work productively together, making use of the rich resources of the University, in individual and collective pursuit of academic excellence, extracurricular accomplishment, and personal challenge. In the words of the Resolution on Rights and Responsibilities adopted by the Faculty of Arts and Sciences on April 14, 1970, "By accepting membership in the University, an individual joins a community ideally characterized by free expression, free inquiry, intellectual honesty, respect for the dignity of others, and openness to constructive change."

For this goal to be achieved, the community must be a tolerant and supportive one, characterized by civility and consideration for others. Therefore the standards and expectations of this community are high, as much so in the quality of interpersonal relationships as they are in academic performance.

# Discrimination

Discrimination based on race, color, sex, gender identity, sexual orientation, religion, creed, national origin, age, ancestry, veteran status, disability, military service, or any other legally protected basis is

contrary to the principles and policies of Harvard University.

**Complaints of Discrimination**

**Discrimination on the Basis of Sex, Sexual Orientation, and Gender Identity**

The University and the College have developed policies and procedures for complaints of discrimination based on sex, sexual orientation, or gender identity. Sexual and gender-based harassment, including sexual violence, are forms of sex discrimination. The College policies and procedures concerning complaints of discrimination based on sex, sexual orientation, or gender identity are described in the *Handbook* section on Harassment.

**Discrimination on Other Bases**

The College has also developed procedures for responding to incidents of all other forms of discrimination. These procedures are described below:

Ordinarily, students should direct their initial inquiries to their Resident Dean or to the Office of the Dean of Harvard College. Students can also report an incident of bias, harassment and/or discrimination by emailing reportbias@fas.harvard.edu or submitting by an incident report via the anonymous bias report form.

Undergraduates who feel that they have been subjected to discrimination may wish first to seek a resolution of the problem through their Resident Dean. These officers may consult with others in the College and the Faculty of Arts and Sciences, including, for example, the Office of the Dean of Harvard College, or the Director of the Accessible Education Office, depending on the nature of the concern.

If the matter cannot be resolved satisfactorily by informal methods, more formal routes are available. The student may lodge a complaint with the Office of the Dean of Harvard College. Depending on the circumstances, and in consultation with the student making the complaint, that officer may request that the Dean of Harvard College appoint a special committee to resolve the problem or may refer it to the appropriate agency or office of Harvard College or of the Faculty of Arts and Sciences for resolution. Such agencies include, among others, the Administrative Board, the Faculty Council, and the Dean of the Faculty.

If the matter cannot be resolved satisfactorily through ordinary channels, either the student or the Dean of Harvard College may refer it to the Dean of the Faculty for final resolution. The Dean of the Faculty holds authority over all departments, committees, commissions, and councils within the Faculty of Arts and Sciences. The disposition of the Dean of the Faculty will be final.

# Harassment

Information and Advice

Racial Harassment

Sexual and Gender-Based Harassment

Recognizing that harassment, including on the basis of race, sex, sexual orientation, and gender identity, constitutes unacceptable behavior, the University, the Faculty of Arts and Sciences, and the Faculty Council have issued a number of documents setting forth the position of the College on these matters, as well as the procedures that are available to students who believe that they have been the object of such harassment.

It is important to note here that speech not specifically directed against individuals in a harassing way may be protected by traditional safeguards of free speech, even though the comments may cause considerable discomfort or concern to others in the community. The College still takes such incidents seriously and will try, when appropriate, to mediate and help students involved to resolve the situations in an informal way. On the other hand, any use of electronic mail or the telephone to deliver obscene or

harassing messages will be treated as a serious matter and ordinarily will result in disciplinary action by the College (see also Electronic Communication and Obscene or Harassing Telephone Calls).

**Information and Advice**

The College encourages undergraduates who believe that they have been the object of harassment to seek information and advice concerning applicable harassment policies, informal resolution and formal complaints, and counseling and other services.

In cases of racial harassment, students may always seek the assistance of their Resident Dean, Faculty Dean, or Racial Harassment Hearing Officer in the Office of the Dean of Harvard College.

In cases of sexual and/or gender-based harassment, undergraduate students are encouraged to contact either a College Title IX Coordinator, the University Title IX Office, or the Office for Dispute Resolution ("ODR"). Although different Title IX Coordinators have different areas of particular expertise (College, GSAS, DCE, Students, Faculty, Staff), any Title IX Coordinator can provide information about the resources and options available and can contact other FAS or University officers for assistance, as appropriate. Students may also seek the assistance of their Resident Dean, Faculty Dean, House- or Yard- designated tutors/proctors for sexual harassment, or the BGLTQ tutors/proctors.

All FAS officers will treat information they have received with appropriate sensitivity, but may, in certain circumstances, need to share certain information with those at the University responsible for stopping or preventing harassment. Persons wishing to have confidential conversations that will not be shared with local Title IX Coordinators may contact the Office of Sexual Assault Prevention and Response (OSAPR), the Office of BGLTQ Student Life, Counseling and Mental Health Services, and/or Harvard Chaplains. In cases of racial harassment, students may always seek the assistance of their Allston Burr Resident Dean or Resident Dean of First-Year Students, Faculty Dean, or Racial Harassment Hearing Officer in the Office of the Dean of Harvard College.

## Faculty Policy Statement on Racial Harassment

### Faculty Policy Statement on Racial Harassment

The Faculty policy statement on racial harassment is set forth below:

Harvard College seeks to maintain an instructional and work environment free from racial harassment. The College defines racial harassment as actions on the part of an individual or group that demean or abuse another individual or group because of racial or ethnic background. Such actions may include, but are not restricted to, using racial epithets, making racially derogatory remarks, and using racial stereotypes. Any member of the College community who believes that they have been harassed on account of race is encouraged to bring the matter to the attention of their Resident Dean or the designated race relations adviser in their House or First-Year Yard.

The College's investigation and adjudication process is designed to be careful and fair. No person will be reprimanded or discriminated against in any way for initiating an inquiry or complaint in good faith. The rights of any person against whom a complaint is lodged will be protected during the investigation.

**Procedures for Informal and Formal Resolution of Allegations of Racial Harassment**

The College's investigation and adjudication processes are designed to be careful and fair. No person will be reprimanded or retaliated against in any way for raising an allegation of harassment, for cooperating in an investigation of such a complaint, or for opposing discriminatory practices. The rights of any person against whom a complaint is lodged will be protected during an investigation.

***Informal Resolution***

A student may consult any adviser or administrator as described above in order to obtain help in clarifying and resolving a situation of perceived racial harassment. Throughout the advising process, information will be treated with appropriate sensitivity and in many circumstances will be kept private by the adviser.

Some reported incidents of harassment involve stereotyping or insensitive or offensive behavior that is the result of miscommunication or lack of communication rather than malicious intent. Calling the matter to the attention of the person or group engaged in such behavior is often enough to bring a stop to it. A person seeking resolution with the help of an adviser may ask the adviser to intervene in order to make the offender aware of their behavior. This intervention may result in an apology to the offended person, changes in behavior, and closure of the incident, thus providing the desired resolution. Where an instructional relationship exists between the parties, changing that relationship may also be helpful. On the other hand, if the offensive behavior continues, intervention may be only the beginning of a longer, more complex process of resolution and remedy.

Throughout the process of informal resolution there will be regular communication between the adviser and the person making the inquiry. In addition, the offended person will receive support for handling the emotional or other effects of the incident or inquiry. The College strongly encourages those with questions or concerns to bring them to the attention of an appropriate adviser.

***Formal Complaint***

When a formal complaint of racial harassment is made against a student, the matter is referred directly to the Administrative Board of Harvard College, the Student-Faculty Judicial Board or the disciplinary body of the graduate or professional school as appropriate. When a formal complaint of racial harassment is made against a faculty or staff member, it is handled according to the process described below.

In such a situation, the designated Racial Harassment Hearing Officer can provide advice and assistance to the complainant, both in presenting the case and, where appropriate, by referring the complainant to other helpful sources of advice and counsel.

Individuals who wish to file a complaint should contact the Racial Harassment Hearing Officer in the Office of the Dean of Harvard College or their Resident Dean. Merely discussing a complaint with one of the officers does not commit one to making a formal charge. However, the matter may be pursued by one of the officers of the Faculty if the behavior is determined to be a community matter.

Formal procedures are initiated by filing a written and signed complaint that may be shown to the accused person. The Hearing Officer will consult with the complainant and with the person named in the complaint in order to ascertain the facts and views of both parties. The Hearing Officer or the Dean of the Faculty of Arts and Sciences may at any point dismiss a complaint if it is found to be without merit. If such an action is taken, the complainant and the accused will be informed of this decision. If, however, the evidence appears to support the complaint, the Hearing Officer will conduct an inquiry and prepare a report for submission to the Dean, summarizing the relevant evidence. A draft of the report will be shown to the complainant, to the respondent, and to the Dean, in order to give them the opportunity to respond before the final report is made. The final report summarizing the findings will be sent to the complainant, the respondent, and the Dean. Both the complainant and the respondent will have the opportunity to comment on the report in a written statement to the Dean.

Upon consideration of the final report, the Dean of the Faculty may take whatever action is warranted or ask the investigative officer to discuss the matter further and to submit a supplementary report. Final action by the Dean completes the procedure in the Faculty of Arts and Sciences.

**Sexual and Gender-Based Harassment Policy and Procedures for the Faculty of Arts and Sciences**

The Faculty of Arts and Sciences (FAS) is committed to fostering an open and supportive community that promotes learning, teaching, research, and discovery. This commitment includes maintaining a safe and healthy educational and work environment in which no member of the community is excluded from participation in, denied the benefits of, or subjected to discrimination in any University program or activity on the basis of sex, sexual orientation, or gender identity. Because sexual and gender-based harassment – including, but not limited to, sexual violence – interfere with an individual's ability to participate fully in or benefit fully from University programs or activities, they constitute unacceptable forms of discrimination.

The University Policy applies to all Harvard students, faculty, staff, Harvard appointees, and third

parties. The University Procedures govern allegations of sexual and gender-based harassment involving Harvard students, including undergraduate students in the College.

Sexual and Gender-Based Harassment Policy

The FAS Policy adopts the University Policy and incorporates the University Procedures, including for purposes of student discipline. The University Policy is reproduced in its entirety here. Please see the entire Sexual and Gender-Based Harassment Policy for the Faculty of Arts and Sciences to view additional sections of the Policy not reproduced here that refer to additional conduct prohibited by the FAS.

***Policy Statement***

Harvard University is committed to maintaining a safe and healthy educational and work environment in which no member of the University community is, on the basis of sex, sexual orientation, or gender identity, excluded from participation in, denied the benefits of, or subjected to discrimination in any University program or activity. Gender-based and sexual harassment, including sexual violence, are forms of sex discrimination in that they deny or limit an individual's ability to participate in or benefit from University programs or activities.

This Policy is designed to ensure a safe and non-discriminatory educational and work environment and to meet legal requirements, including: Title IX of the Education Amendments of 1972, which prohibits discrimination on the basis of sex in the University's programs or activities; relevant sections of the Violence Against Women Reauthorization Act; Title VII of the Civil Rights Act of 1964, which prohibits discrimination on the basis of sex in employment; and Massachusetts laws that prohibit discrimination on the basis of sex, sexual orientation, and gender identity. It does not preclude application or enforcement of other University or School policies.

It is the policy of the University to provide educational, preventative and training programs regarding sexual or gender-based harassment; to encourage reporting of incidents; to prevent incidents of sexual and gender-based harassment from denying or limiting an individual's ability to participate in or benefit from the University's programs; to make available timely services for those who have been affected by discrimination; and to provide prompt and equitable methods of investigation and resolution to stop discrimination, remedy any harm, and prevent its recurrence. Violations of this Policy may result in the imposition of sanctions up to, and including, termination, dismissal, or expulsion, as determined by the appropriate officials at the School or unit.

Retaliation against an individual for raising an allegation of sexual or gender-based harassment, for cooperating in an investigation of such a complaint, or for opposing discriminatory practices is prohibited. Submitting a complaint that is not in good faith or providing false or misleading information in any investigation of complaints is also prohibited.

Nothing in this Policy shall be construed to abridge academic freedom and inquiry, principles of free speech, or the University's educational mission.

***Definitions***

*Sexual Harassment*

Sexual harassment is unwelcome conduct of a sexual nature, including unwelcome sexual advances, requests for sexual favors, and other verbal, nonverbal, graphic, or physical conduct of a sexual nature, when: (1) submission to or rejection of such conduct is made either explicitly or implicitly a condition of an individual's employment or academic standing or is used as the basis for employment decisions or for academic evaluation, grades, or advancement (quid pro quo); or (2) such conduct is sufficiently severe, persistent, or pervasive that it interferes with or limits a person's ability to participate in or benefit from the University's education or work programs or activities (hostile environment).

Quid pro quo sexual harassment can occur whether a person resists and suffers the threatened harm, or the person submits and avoids the threatened harm. Both situations could constitute discrimination on the basis of sex.

A hostile environment can be created by persistent or pervasive conduct or by a single severe episode. The more severe the conduct, the less need there is to show a repetitive series of incidents to prove a hostile environment. Sexual violence, including rape, sexual assault, and domestic and dating violence, is a form of sexual harassment. In addition, the following conduct may violate this Policy:

- Observing, photographing, videotaping, or making other visual or auditory records of sexual activity or nudity, where there is a reasonable expectation of privacy, without the knowledge and consent of all parties
- Sharing visual or auditory records of sexual activity or nudity without the knowledge and consent of all recorded parties and recipient(s)
- Sexual advances, whether or not they involve physical touching
- Commenting about or inappropriately touching an individual's body
- Requests for sexual favors in exchange for actual or promised job benefits, such as favorable reviews, salary increases, promotions, increased benefits, or continued employment
- Lewd or sexually suggestive comments, jokes, innuendoes, or gestures
- Stalking

Other verbal, nonverbal, graphic, or physical conduct may create a hostile environment if the conduct is sufficiently persistent, pervasive, or severe so as to deny a person equal access to the University's programs or activities. Whether the conduct creates a hostile environment may depend on a variety of factors, including: the degree to which the conduct affected one or more person's education or employment; the type, frequency, and duration of the conduct; the relationship between the parties; the number of people involved; and the context in which the conduct occurred.

*Unwelcome Conduct*

Conduct is unwelcome if a person (1) did not request or invite it and (2) regarded the unrequested or uninvited conduct as undesirable or offensive. That a person welcomes some sexual contact does not necessarily mean that person welcomes other sexual contact. Similarly, that a person willingly participates in conduct on one occasion does not necessarily mean that the same conduct is welcome on a subsequent occasion.

Whether conduct is unwelcome is determined based on the totality of the circumstances, including various objective and subjective factors. The following types of information may be helpful in making that determination: statements by any witnesses to the alleged incident; information about the relative credibility of the parties and witnesses; the detail and consistency of each person's account; the absence of corroborating information where it should logically exist; information that the Respondent has been found to have harassed others; information that the Complainant has been found to have made false allegations against others; information about the Complainant's reaction or behavior after the alleged incident; and information about any actions the parties took immediately following the incident, including reporting the matter to others.

In addition, when a person is so impaired or incapacitated as to be incapable of requesting or inviting the conduct, conduct of a sexual nature is deemed unwelcome, provided that the Respondent knew or reasonably should have known of the person's impairment or incapacity. The person may be impaired or incapacitated as a result of drugs or alcohol or for some other reason, such as sleep or unconsciousness. A Respondent's impairment at the time of the incident as a result of drugs or alcohol does not, however, diminish the Respondent's responsibility for sexual or gender-based harassment under this Policy.

*Gender-Based Harassment*

Gender-based harassment is verbal, nonverbal, graphic, or physical aggression, intimidation, or hostile conduct based on sex, sex-stereotyping, sexual orientation or gender identity, but not involving conduct of a sexual nature, when such conduct is sufficiently severe, persistent, or pervasive that it interferes with or limits a person's ability to participate in or benefit from the University's education or work programs or activities. For example, persistent disparagement of a person based on a perceived lack of stereotypical masculinity or femininity or exclusion from an activity based on sexual orientation or gender identity also may violate this Policy.

***Jurisdiction***

This Policy applies to sexual or gender-based harassment that is committed by students, faculty, staff, Harvard appointees, or third parties, whenever the misconduct occurs:

1. On Harvard property; or

2. Off Harvard property, if:

    a) the conduct was in connection with a University or University-recognized program or activity; or

    b) the conduct may have the effect of creating a hostile environment for a member of the University community.

***Monitoring and Confidentiality***

A variety of resources are available at the University and in the area to assist those who have experienced gender-based or sexual harassment, including sexual violence.

Individuals considering making a disclosure to University resources should make sure they have informed expectations concerning privacy and confidentiality. The University is committed to providing all possible assistance in understanding these issues and helping individuals to make an informed decision.

It is important to understand that, while the University will treat information it has received with appropriate sensitivity, University personnel may nonetheless need to share certain information with those at the University responsible for stopping or preventing sexual or gender-based harassment. For example, University officers, other than those who are prohibited from reporting because of a legal confidentiality obligation or prohibition against reporting, must promptly notify the School or unit Title IX Coordinator about possible sexual or gender-based harassment, regardless of whether a complaint is filed. Such reporting is necessary for various reasons, including to ensure that persons possibly subjected to such conduct receive appropriate services and information; that the University can track incidents and identify patterns; and that, where appropriate, the University can take steps to protect the Harvard community. This reporting by University officers will not necessarily result in a complaint; rather, the School or unit Title IX Coordinator, in consultation with the Title IX Officer, will assess the information and determine what action, if any, will be taken. Information will be disclosed in this manner only to those at the University who, in the judgment of the Title IX Officer or School or unit Title IX Coordinator, have a need to know.

Should individuals desire to discuss an incident or other information only with persons who are subject to a legal confidentiality obligation or prohibition against reporting, they should ask University officers for information about such resources, which are available both at the University and elsewhere. University officers are available to discuss these other resources and to assist individuals in making an informed decision.

***Violations of other Rules***

The University encourages the reporting of all concerns regarding sexual or gender-based harassment. Sometimes individuals are hesitant to report instances of sexual or gender-based harassment because they fear they may be charged with other policy violations, such as underage alcohol consumption. Because the University has a paramount interest in protecting the well-being of its community and remedying sexual or gender-based harassment, other policy violations will be considered, if necessary, separately from allegations under this Policy.

**Other Sexual and Gender-Based Misconduct Pursuant to the FAS Policy**

The Faculty of Arts and Sciences, including the College, share an additional commitment to training our students to be citizens and citizen leaders within a larger community beyond the borders of our campus. For this reason, it is the expectation of the Faculty of Arts and Sciences that all students, whether or not they are on campus or are currently enrolled in a degree program, will behave in a mature and responsible manner. Consistent with this principle, sexual and gender-based misconduct

are not tolerated by the FAS even when, because they do not have the effect of creating a hostile environment for a member of the University community, they fall outside the jurisdiction of the University Policy. Because sexual and gender-based misconduct are in direct opposition to our community values, cases involving such conduct may be referred by the Administrative Board to the Harvard University Office for Dispute Resolution ("ODR") for investigation in accordance with the University Procedures and the FAS Policy and Procedures.

To read more about other sexual and gender-based misconduct, including "Conduct in Relationships between Individuals of Different University Status," please see sections III and IV of the Sexual and Gender-Based Harassment Policy for the Faculty of Arts and Sciences.

**Procedures for Implementing the Policy, Including for Discipline**

**FAS Procedures for Implementing the Sexual and Gender-Based Harassment Policy, Including for Discipline**

**Introduction**

Harvard students, faculty, staff, and other Harvard appointees, or third parties wishing to report a violation of this Policy, should begin by contacting the Harvard University Office for Dispute Resolution ("ODR") or the relevant FAS Title IX Coordinator. In the event that the first FAS officer contacted by an Initiating Party is not the appropriate Title IX Coordinator, it is that FAS officer's responsibility to forward the matter either to ODR or to the appropriate Title IX Coordinator.

***Interim Measures***

As set forth in the FAS Procedures and in the University Procedures, interim measures designed to support and protect the Initiating Party or the University community may be considered or implemented at any time, including during a request for information or advice, informal resolution, or a formal complaint proceeding. Consistent with FAS policy, interim measures might include, among others: restrictions on contact; course-schedule or work-schedule alteration; changes in housing; leaves of absence; or increased monitoring of certain areas of the campus. Interim measures are subject to review and revision throughout the processes described below.

***Requests for Information and Advice***

Any FAS student or staff or Faculty member who has a concern, inquiry, or complaint regarding sexual or gender-based harassment or misconduct should feel free to seek information and advice concerning applicable policies, informal resolution, the formal complaint process, and counseling and other services.

For information and advice, members of the FAS community are encouraged to contact either ODR or any Title IX Coordinator within FAS.

Please use the following information to contact ODR:

*Office for Dispute Resolution*
*odr@harvard.edu*
*617-495-3786*
*Smith Campus Center, Suite 901*
*1350 Massachusetts Avenue*
*Cambridge, MA 02138*

The College Title IX Coordinators are listed on the Harvard College Title IX website.

- ***Erin Clark***

  *Title IX Coordinator, Harvard College*
  *erin_clark@fas.harvard.edu*
  *617-495-3336*
  *024 University Hall*
  *Cambridge, MA 02138*

- **Brian Libby**

  *Assistant Director, Office of International Education*
  *Title IX Coordinator, Harvard College*
  *blibby@fas.harvard.edu*
  *617-384-6943*
  *1414 Massachusetts Avenue, 3rd Floor*
  *Cambridge, MA 02138*

*Visit this website to find the full list of FAS Title IX Coordinators:*

***Title IX Coordinators***

Who they are

Title IX Coordinators serve in a neutral role and support all members of the Harvard community. Coordinators have specialized experience in responding to disclosures of sexual and gender-based harassment in the Harvard community. They are also aware that your concerns may be of a sensitive nature and can offer supports to help you continue with your work or studies while maintaining appropriate discretion.

If you have concerns about events you were involved in, an incident you observed, or an incident that you were told about involving another member of the community, we encourage you to have a conversation with a Title IX Coordinator. Additionally, if you have questions about the investigative process or generally want to learn more about the relevant policies and procedures, please do not hesitate to contact one of your Coordinators. Speaking with a Title IX Coordinator is not the same as filing a formal complaint with the Office for Dispute Resolution.

What they can do for you

- Provide accurate, consistent information about the resources and options available to students both on-campus and in the broader community;
- Help to arrange interim measures, the supports to help continue with studies and participate in all aspects of campus life at Harvard; and,
- Help students access ODR and/or learn more about the complaint process.

*Discretion and Sensitivity*

Title IX Coordinators are trained to handle sensitive information with appropriate discretion. Although not a confidential resource, they respect and protect privacy to the greatest extent possible, sharing information only on a need-to-know basis, for example, to evaluate interim measures or to enable the University to take action to ensure the safety of the community.

**Procedures Concerning Alleged Harassment by Students (Please see Section VI of the FAS Policy for more information on the procedures briefly described below)**

*Informal Resolution*

An individual who is concerned about sexual or gender-based harassment may make a request for informal resolution to an FAS Title IX Coordinator, the Title IX Officer, or ODR.

*Formal Complaints*

An initiating Party may file a formal complaint against a Student, directly with ODR, alleging a violation of this Policy. If an Initiating Party submits a formal complaint to a Title IX Coordinator, the Title IX Coordinator will forward the formal complaint to ODR.

The FAS Procedures are intended to supplement the University Procedures and detail the FAS role at moments when the University Procedures refer to actions taken or decisions made by the School or unit. You can find the FAS procedures here. Section (VI) C, sets out procedures pertaining to allegations of sexual or gender-based harassment committed by a student, including a student at Harvard College, GSAS, and both the Extension School and the Summer School within DCE. Sections

(VI) D and E, set out procedures pertaining to allegations of sexual or gender-based harassment committed by Faculty and staff.

## Faculty Resolutions

On April 14, 1970, the Faculty of Arts and Sciences approved the Resolution on Rights and Responsibilities, printed below in its entirety (members of the community should also be aware of the Faculty's Free Speech Guidelines, available at secfas.fas.harvard.edu). This University-wide Statement and its first interpretation were adopted on an interim basis by the Governing Boards on September 20, 1970, and were voted to remain in effect indefinitely in May 1977. The second interpretation was adopted by the Governing Boards in January-February 2002.

**Resolution on Rights and Responsibilities**

The central functions of an academic community are learning, teaching, research and scholarship. By accepting membership in the University, an individual joins a community ideally characterized by free expression, free inquiry, intellectual honesty, respect for the dignity of others, and openness to constructive change. The rights and responsibilities exercised within the community must be compatible with these qualities.

The rights of members of the University are not fundamentally different from those of other members of society. The University, however, has a special autonomy and reasoned dissent plays a particularly vital part in its existence. All members of the University have the right to press for action on matters of concern by any appropriate means. The University must affirm, assure and protect the rights of its members to organize and join political associations, convene and conduct public meetings, publicly demonstrate and picket in orderly fashion, advocate, and publicize opinion by print, sign, and voice.

The University places special emphasis, as well, upon certain values which are essential to its nature as an academic community. Among these are freedom of speech and academic freedom, freedom from personal force and violence, and freedom of movement. Interference with any of these freedoms must be regarded as a serious violation of the personal rights upon which the community is based.

Furthermore, although the administrative processes and activities of the University cannot be ends in themselves, such functions are vital to the orderly pursuit of the work of all members of the University. Therefore, interference with members of the University in performance of their normal duties and activities must be regarded as unacceptable obstruction of the essential processes of the University. Theft or willful destruction of the property of the University or of its members must also be considered an unacceptable violation of the rights of individuals or of the community as a whole.

Moreover, it is the responsibility of all members of the academic community to maintain an atmosphere in which violations of rights are unlikely to occur and to develop processes by which these rights are fully assured. In particular, it is the responsibility of officers of administration and instruction to be alert to the needs of the University community; to give full and fair hearing to reasoned expressions of grievances; and to respond promptly and in good faith to such expressions and to widely expressed needs for change. In making decisions which concern the community as a whole or any part of the community, officers are expected to consult with those affected by the decisions. Failures to meet these responsibilities may be profoundly damaging to the life of the University. Therefore, the University community has the right to establish orderly procedures consistent with imperatives of academic freedom to assess the policies and assure the responsibility of those whose decisions affect the life of the University.

No violation of the rights of members of the University, nor any failure to meet responsibilities, should be interpreted as justifying any violation of the rights of members of the University. All members of the

community—students and officers alike—should uphold the rights and responsibilities expressed in this Resolution if the University is to be characterized by mutual respect and trust.

**Interpretation**

It is implicit in the language of the Statement on Rights and Responsibilities that intense personal harassment of such a character as to amount to grave disrespect for the dignity of others be regarded as an unacceptable violation of the personal rights on which the University is based.

It is implicit in the University-wide Statement on Rights and Responsibilities that any unauthorized occupation of a University building, or any part of it, that interferes with the ability of members of the University to perform their normal activities constitutes unacceptable conduct in violation of the Statement and is subject to appropriate discipline.

**Commission of Inquiry**

Any student, faculty member, or administrative officer who has a complaint or an inquiry may address it to the Commission of Inquiry, c/o Secretary of the Faculty of Arts and Sciences, University Hall, First Floor (617-495-4780). The Commission will redirect the complaint or query to the appropriate agency of the Faculty of Arts and Sciences. When such an agency does not exist, the Commission itself will attempt to aid in resolving the matter. Occasionally, the Commission is instrumental in establishing a new agency for handling recurrent issues. Although the Commission has no power to make rulings, it can play an advocacy role in pressing for the resolution of issues.

Ordinarily, the Commission reports to the community on the matters which come before it, and in doing so, attempts to keep the community informed about factual background material and the resolution of matters of community concern.

# University Ombudsman Office

The University Ombudsman Office is an independent resource for problem resolution serving the academic community. The office is available to all Harvard faculty, students, post-docs, research personnel, and staff. The office supplements but does not replace any mechanisms for addressing grievances within the College and other parts of the University. The office has no power to adjudicate, arbitrate, or to make formal investigations. The ombudsman is confidential, neutral, and independent. A visitor can discuss issues and concerns with the ombudsman without committing to further disclosure or any formal resolution. The ombudsman may assist individuals in finding solutions for problems that they may have been unable to resolve using existing channels. The ombudsman can help analyze and assess avenues for conflict resolution, including assistance with both written and verbal communications. Next steps are always determined by the visitor, depending on the circumstances and comfort with possible options. Provided all parties agree, the ombudsman may facilitate conversations through shuttle diplomacy, informal mediation, or be present in a discussion as a neutral party. Typical issues may include academic and research disputes, adviser-student relationships, harassment, inappropriate behavior, unprofessional conduct, disability or illness, problematic work climate, and resource referral.

The University Ombudsman Office officially reports to the Executive Vice President with a dotted line to the Provost but is independent of any University administrative structure. Office operations are consistent with the code of ethics and the practices of The International Ombudsman Association. To learn more about the Ombudsman Office, please visit the website for the University Ombudsman Office.

# Standards of Conduct in the Harvard Community

The rules and regulations affecting undergraduates have been established by the Faculty of Arts and Sciences. Students are expected to be familiar with those regulations covered in this *Handbook* that apply to them. The rules of Harvard College provide a framework within which all students are free to pursue their work, under the safest and most equitable conditions the College can create. These rules, then, serve as the guidelines forming the protection of each individual's well-being. Whenever violations of the rules occur, the College will treat them as matters of serious concern because they disrupt the individual lives of students, and the shared life of this community.

It is the expectation of the College that all students, whether or not they are on campus or are currently enrolled as degree candidates, will behave in a mature and responsible manner. This expectation for mature and responsible conduct also encompasses accountability for one's own well-being, including responsible decision-making regarding physical and mental health. Further, the College expects every student to be familiar with the regulations governing membership in the Harvard community, set forth in the pages that follow. Because students are expected to show good judgment and use common sense at all times, not all kinds of misconduct or behavioral standards are codified here. The College takes all these diverse principles very seriously; together they create a foundation for the responsible, respectful society that Harvard seeks to foster among its students, faculty, and staff.

Careful note should be taken that the University is not, and cannot be considered as, a protector or sanctuary from the existing laws of the city, state, or federal government.

## Physical Violence

Harvard College strives to maintain a safe and secure environment for all members of the community and thus does not tolerate physical violence or threats of physical violence used by or against the members of the community. Students are expected to avoid all physical conflicts, confrontations, and altercations unless their own safety or that of another is at extreme jeopardy. Failure to do so will ordinarily result in disciplinary action, including, but not limited to, requirement to withdraw from the College (see also Sexual Assault and Other Sexual Misconduct).

## Honesty

The College expects that all students will be honest and forthcoming in their dealings with the members of this community. Further, the College expects that students will answer truthfully questions put to them by a properly identified officer of the University. Failure to do so ordinarily will result in disciplinary action, including, but not limited to, requirement to withdraw from the College.

All students are required to respect private and public ownership; instances of theft, misappropriation, or unauthorized use of or damage to property or materials not one's own will ordinarily result in disciplinary action, including requirement to withdraw from the College.

## Sexual Misconduct

FAS's Sexual and Gender-Based Harassment Policy that adopts the University Policy and incorporates the University Procedures, including for purposes of student discipline, covers all forms of sexual harassment, including sexual misconduct. As explained in the policies, sexual violence, including rape, sexual assault, and domestic and dating violence, is a form of sexual harassment.

**Legal Recourse**

Rape and indecent assault and battery are felonies in the Commonwealth of Massachusetts, and any student who believes that they have suffered a rape or indecent assault and battery is strongly encouraged to report the incident to the HUPD immediately (617-495-1212) or the local police where the alleged incident occurred.

Students who wish to report an allegation of sexual violence may also choose to initiate a formal complaint with the Office for Dispute Resolution. For more information regarding the formal complaint process, please visit ODR's website or visit the University's Title IX website.

Formal complaints within the University may be pursued whether or not a complainant chooses to file criminal charges. Counseling and consultations regarding emotional, legal, and administrative concerns are available to those students who wish to pursue either University or criminal charges, or both.

**Resources**

Harvard and the local community provide many resources to support, advise, and assist victims of rape and sexual assault. All of the following resources have had training to deal effectively with sexual assault. In addition to HUPD and HUHS, Harvard College has administrative officers and counselors available to help. Some resources are as follows:

***University Resources:***

Title IX Office Website

This website provides information regarding Harvard's Sexual and Gender-Based Harassment Policy, procedures, as well as the many resources available to prevent and respond to sexual and gender-based harassment at Harvard.

Harvard University Police Department (HUPD)
Sensitive Crimes Unit - 617-495-1796 - 8 am–4 pm
After these hours, HUPD, 617-495-1212
https://www.hupd.harvard.edu/personal-and-violent-crime

Office of Sexual Assault Prevention and Response

24 Hour-Hotline: 617-495-9100
Business: 617-495-5636

*Peer Education and Counseling*

Consent Advocates and Relationship Educators (CARE) (peer education)

RESPONSE (peer counseling for sexual assault)
Visit: Lowell House Basement E-013, Sun.-Weds., 8 p.m. - 11 p.m.
Call: 617-495-9600, every night, 8 p.m.- 8 a.m.

***Title IX***

Title IX at Harvard College

**Erin Clark**, Title IX Coordinator, Harvard College
Contact: erin_clark@fas.harvard.edu, 617-495-3336

**Brian Libby**, Title IX Coordinator, Harvard College
Contact: blibby@fas.harvard.edu, 617-384-6943

Title IX at Harvard University

**Nicole Merhill**, Title IX Officer
Contact: nicole_merhill@harvard.edu, 617-496-2470

Office for Dispute Resolution (ODR)

**William McCants**, Director for the Office for Dispute Resolution
Contact: odr@harvard.edu, 617-495-3786

*Harvard University Health Services*

HUHS Behavioral Health Services

HUHS Medical After-Hours Service
617-495-5711 - nights and weekends

HUHS Counseling and Mental Health Services
Smith Campus Center - 617-495-2042

Harvard Chaplains

***Community Resources:***

Beth Israel Hospital Emergency Room (West Campus) (for medical evidence collection within 5 days of a sexual assault)
Clinical Center, Pilgrim Road, Boston - 617-754-2400

Beth Israel Deaconess Medical Center Rape Intervention Program
617-667-8141

Boston Area Rape Crisis Center Hotline
99 Bishop Allen Drive (Central Square) Cambridge - 617-492-RAPE or 617-492-7273

Cambridge Hospital Victims of Violence Program
Central Street Health Clinic, Somerville - 617-591-6360

***Outside Agencies:***

U.S. Department of Education, Office for Civil Rights (OCR)

U.S. Equal Employment Opportunity Commission (EEOC)

Massachusetts Commission Against Discrimination (MCAD)

If a student does not wish to use these Harvard or Community resources, HUPD and the College encourage any students who have been sexually assaulted to identify a trusted friend, family member, counselor, or other source of support to help deal with the emotional trauma they may experience, and know that at any time, there are additional resources available.

Ideally, a good source of support will allow a survivor of sexual assault or rape to make decisions and take control over the choices they make after the assault. For additional information about University support and resources for sexual violence, visit the Harvard University Police Department webpage on Sexual Assault, Domestic Violence, Dating Violence, and Stalking.

## Drugs and Alcohol

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Harvard expects its students and employees to maintain an environment that is safe and healthy. The unlawful possession, use, or distribution of illicit drugs and alcohol by students and employees on Harvard property or as a part of any Harvard activity are violations of University rules as well as the law.

Possession, use, or distribution of certain non-prescription drugs, including marijuana, amphetamines, heroin, cocaine, and non-prescription synthetics; procurement or distribution of alcohol by anyone under 21 years of age; and provision of alcohol to anyone under 21 years of age are violations of the law and of Harvard policy.

Although Massachusetts law now permits adults aged 21 or older to possess and consume marijuana under certain circumstances, federal law prohibits the possession, use, or distribution of marijuana, including for medical purposes, on Harvard property or as part of a Harvard activity. Thus, even if possession or use of marijuana would be permitted under Massachusetts law, it remains prohibited on campus.

College policies and procedures also reflect additional expectations for student conduct based on the College's concerns about high-risk drinking behaviors, such as binge drinking and the rapid or competitive consumption of alcohol, and their many adverse consequences for students' health and lives. All students are expected to comply with the laws of the Commonwealth of Massachusetts and with all College rules governing possessing or serving alcohol. More information is available at your House website or the website for the Dean of Students Office. The University holds its students and employees responsible for the consequences of their decisions to use or distribute illicit drugs or to serve or consume alcohol. Additionally, the misuse of prescription drugs (sharing, buying, or using in a manner different than prescribed) is a violation of University policy.

**Summary of City, State, and Federal Laws and Regulations**

1. The sale, delivery, or furnishing of alcohol to persons under the age of 21 is prohibited.
2. The possession or transportation of alcoholic beverages by individuals under the age of 21 is prohibited.
3. Social hosts may be held liable for injuries caused by guests who consume alcohol at the hosts' premises and then harm themselves or third parties.
4. Willfully misrepresenting one's age or altering, defacing, or otherwise falsifying identification offered as proof of age, with the intent of purchasing alcoholic beverages is prohibited.
5. There are heavy penalties, including imprisonment, for possession or distribution of illicit drugs and for selling or delivering alcohol to, or procuring alcohol for, anyone under 21.
6. The consumption of alcohol on public property or on property open to the public is prohibited.

All students are expected to comply with all applicable city, state, and federal laws and regulations as well as with all College rules governing the use and possession of alcohol. The College does not permit transportation or consumption of alcoholic beverages in open containers in public areas on campus.

**Health Concerns**

The use of illicit drugs and the misuse of alcohol or prescription drugs are potentially harmful to health. In particular, synthetically-produced drugs often have unpredictable emotional and physical side effects that constitute an extreme health hazard. Students should also weigh the seriousness of potential loss of function that may come from ingesting illicit drugs or too much alcohol. Because of the considerable hazards involved in drug and alcohol use, administrative, medical, and psychiatric help for students having alcohol or other drug problems are available on a confidential basis from the Office of Alcohol & Other Drug Services (AODS) and other departments within Harvard University Health Services (HUHS), as well from Resident Deans and other officers of the University. Any member of the University may make use of the Health Services on an emergency basis, day and night.

**Referrals for Interventions/Treatment Regarding Alcohol and/or Other Drug Abuse**

The following procedures outline the process for obtaining consultation for a Harvard College student whose known or suspected alcohol or drug use is affecting the student's ability to function effectively as a student and/or as a member of the Harvard community. Referrals may be made by a Resident Dean based on incidents that come to their attention or as a result of Administrative Board action. Interventions with AODS are not intended to take the place of routine advising conversations between Resident Deans and students. Rather, they provide an opportunity for structured consultation, particularly for those students who may not view their substance use or related negative consequences as problematic. The procedures and resources outlined below are focused upon the health and safety of the student.

**Grounds for Referral**

Any of the following conditions may lead a Resident Dean or the Administrative Board to refer a student for an intervention with AODS about the student's known or suspected alcohol or drug use:

- a medical complication resulting from alcohol or drug use (e.g., aspiration, traumatic accident, alcohol poisoning, seizure, blackout, overdose, infection from intravenous use);
- repeated incidents related to alcohol or drug use that require medical intervention;
- a serious behavioral or disciplinary problem related to alcohol or drug use;
- disruption in the residential community or academic environment related to alcohol or drug use;
- academic difficulties or other problems in functioning related to misuse of alcohol or drugs; or
- repeated minor infraction of rules regarding alcohol or drug use.

**Referral Letter**

The Resident Dean makes the referral for an intervention in writing to the student with a copy to the Director of AODS and a copy for the student's file. The referral letter frames the referral as a consultation regarding the student's alcohol or drug use, rather than as treatment or counseling. The referral letter clearly communicates that the student is expected to schedule the appointment(s) with an AODS staff member and complete the designated program within a specified time of receiving the letter (ordinarily, no more than three weeks) and is to comply with all of the provider's recommendations. It is also made clear in the referral letter that, should the student choose to decline the referral, the Resident Dean and senior officers of the House and the College will assess, on the basis of available information, whether it is appropriate for the student to continue in residence and remain enrolled in the College. For more information on this topic, see the *Handbook* section on Life in the Harvard Community, under the sub-heading "Consultations and Interventions for Behavioral Disturbances Due to Alcohol or Drug Abuse and Psychological Disturbances."

**AODS Interventions**

The AODS staff member will meet with the student individually either for an Individual Consultation or for two BASICS (Brief Alcohol Screening & Intervention for College Students) sessions. Ordinarily, students who are evaluated at HUHS for alcohol intoxication, or for cases involving marijuana and/or other drugs, are referred for individual consultations and students treated at a hospital for alcohol intoxication are referred to BASICS. Both interventions involve discussing the student's substance use history and circumstances surrounding the referral, and may then direct the student to further resources. Resources include, but are not limited to, alcohol education (Individual Consultations or BASICS), further assessment, ongoing counseling, and/or substance abuse groups, offered through Counseling & Mental Health Services. It should also be noted that support is available from HUHS with or without a referral —students can also access AODS services on their own.

**Monitoring Student Compliance**

During the intervention, the AODS staff member will seek permission from the student to contact the appropriate College officer (typically, the student's Resident Dean) regarding the student's attendance and participation in the session(s) and what further action, if any, is recommended. Authorized release forms are used as necessary.

It is the responsibility of the Resident Dean, in consultation with the Director of AODS and other senior College officials, to follow-up with the student upon notification of a student's failure to comply with the recommended assessment, intervention, or treatment.

**Disciplinary Action**

The University requires all students to become familiar with the information on drugs and alcohol distributed at registration each year and expects students to make responsible choices and create safe social environments. The College will take serious action, ordinarily probation or requirement to withdraw, in any case involving the possession in quantity or the sale or distribution of drugs, or when cases of drug and alcohol use create a danger to individuals or to the community at large. The College will also take action in cases in which a student is involved in the falsification of identification with the intent of obtaining alcohol. If a person was seriously harmed, or could have been seriously harmed, as a

result of consuming drugs or alcohol provided by another person, then the College may take disciplinary action against the person who provided the drugs or alcohol, up to and including requirement to withdraw. However, the College has adopted a Help-Seeking Policy, as set forth below.

**Help-Seeking Policy**

We expect students to abide by the law and Harvard policy on the use of drugs and alcohol. The University is not a sanctuary from the existing laws of the city, state, or federal government and students must recognize the consequences of their personal decisions as well as the impact those decisions can have on themselves, others, and the wider College community.

However, in cases of drug or alcohol intoxication, health and safety are the College's primary concerns and this policy is intended to encourage students to seek help.

Students seeking medical treatment for themselves or another person for the effects of drug or alcohol use will not be subject to disciplinary action from the College for violations pertaining to the use or provision of drugs or alcohol. Sources of help might include: HUHS or other medical providers; College residential life staff; and HUPD or other police or security officers.

This policy does not provide immunity from disciplinary action relating to any other conduct violations, including, without limitation, assault, property damage, or the possession in quantity or the sale or distribution of drugs. See Standards of Conduct.

**Responsibilities of Student Groups**

The College expects officers of all student groups (whether or not such group is officially recognized by the College), like any other social hosts, to create safe social environments. To this end, student group officers are urged to participate in annual education efforts with the Office of Alcohol and Other Drug Services and DSO, which may include training on event planning, risk reduction, and the responsible service of alcohol.

If a person was seriously harmed, or could have been seriously harmed, as a result of consumption of alcohol or drugs at an event held, sponsored, organized or supported by a student group and those directly responsible for the provision of alcohol or drugs are not identified, then the College may hold the event hosts personally responsible. If the event hosts are not identified, then the officers of the organization may be held personally responsible. In considering such cases, the College will, in all circumstances, apply the Help-Seeking Policy as described below.

At a minimum, when cases involving the consumption of alcohol or drugs at an event held, sponsored, organized or supported by a student group come to the attention of the College, the student group may be asked to come to the Dean of Students Office for a conversation about their procedures for hosting responsible social events and may be asked to participate in additional education or training efforts.

**Application of the Help-Seeking Policy to Student Groups**

The Help-Seeking Policy is intended to encourage all members of student groups to access help for the effects of drug or alcohol use. If a person needs assistance after consuming alcohol or drugs at an event held, sponsored, organized or supported by a student group and the person who seeks assistance is a member of that student group, then the College will weigh this fact heavily as a mitigating circumstance when considering potential disciplinary action with respect to other student group members. Conversely, the failure to seek help by members of the student group also may be considered in deciding whether to impose disciplinary action. In addition, the College may consider as mitigating factors the student group's participation in the College's annual education and training about responsible social events, as well as any efforts made by the hosts or officers to prevent the harmful or potentially harmful situation and their cooperation with the College in its investigation of the situation.

**Usual Responses**

As described above, officers of the College initially may respond to the use of illicit drugs, underage possession or consumption of alcohol, serving alcohol to underage individuals, or overconsumption of alcohol with a warning and/or referral to the AODS. The College believes that education and treatment approaches for individuals who receive emergency medical attention may reduce the likelihood of future

occurrences. However, a pattern of behavior in violation of rules governing drug or alcohol use or possession will lead to warning by the Faculty Dean or Senior Assistant Dean of the First Year Experience, admonition by the Administrative Board, probation, or requirement to withdraw.

**Responsible Social Events**

Harvard College is committed to supporting a residential and educational community that is culturally, intellectually, and socially enriching for our students. A healthy and satisfying social life is an important aspect of the undergraduate experience and plays a vital role in developing the bonds of friendship, collegiality, and community. While alcohol may have a place in social activities, its role is ancillary to the mission and purpose of our residential and educational community.

The College encourages students to socialize and interact with each other in safe and healthy ways. We favor a multifaceted approach to alcohol education, policy, and practice that prioritizes student health and safety and promotes student welfare. We encourage responsible social behavior in a variety of ways, including educating the community through peer education programs such as Drug & Alcohol Peer Advisers (DAPA) and Consent Advocates & Relationship Educators (CARE). We implemented the Help-Seeking Policy to help ensure that students seek medical care for their peers. Each year, we dedicate significant resources to support a wide range of alcohol-free programming alternatives at the House, Yard, and campus-wide levels.

**Policies and Procedures Governing Private Parties in the Houses**

1. Students who are 21 years of age or older are permitted to possess, store, and consume alcohol in their assigned rooms.
2. Students who wish to host private parties with alcohol must be at least 21 years of age. If the private party is to be held in a suite, the hosts must be residents of the room in which the private party will be held.
3. All private parties must be registered with and approved by the House. Houses may determine the deadlines and means of submitting registrations provided the following minimum requirements are met:
    1. Student hosts must meet with their tutor prior to hosting their first private party of the academic year.
    2. Student hosts must demonstrate a satisfactory understanding of strategies to create safe social environments as well as their understanding of the applicable laws and policies governing alcohol, including responsibilities for social hosts.
    3. Student hosts must acknowledge responsibility for compliance with all applicable laws and policies.
4. Private parties are by personal invitation only. When choosing how many students to invite, a host should be mindful of the number of students permitted to be present in the suite at one time (see section 11 below). Advertising is prohibited. Use of social media is only permitted in the context of private and directed invitations. (e.g. private messages on Facebook, direct message on Twitter).
5. Host(s) of private parties must be present for the entire event, monitor the event, and make sure there is no underage or unsafe drinking.
6. Ample water, non-alcoholic beverages, and food must be provided for the duration of any private party or event at which alcohol will be available. Water and non-alcoholic beverages must be as visible and accessible as the alcoholic beverages that are being served. Adequate food also must be provided. Alcohol may not be served at an event until water, non-alcoholic beverages, and food are also available; alcohol may not be served if the water, non-alcoholic beverages, or food become unavailable.
7. The amount of alcohol purchased must be scaled for the reasonably anticipated number of attendees of legal drinking age.
8. Activities that promote high-risk drinking, such as excessive and/or rapid consumption of alcohol, particularly of a competitive nature, are not permitted. It is expected that hosts will plan parties where drinking is not the central activity.
9. Tutors or other House residential staff will check in at least once throughout the course of each private party.
10. If a tutor has concerns that a private party is not being managed well, then the tutor will speak with the host(s) about the concerns, require that the host(s) resolve the concerns, and check the event again after a short time. If the concerns are not properly addressed, then the

tutor will take steps to shut down the event.

11. Private parties are limited to the number of students that can be safely in the suite, as determined by the House.
12. At the discretion of the House, where the architecture of student suites makes them unsuitable for private parties, House common spaces may be used by student residents who wish to host private parties. In such cases, the rules provided in this section apply.

**Policies and Procedures Governing Social Events on Campus**

1. For the purpose of this policy, “social events on campus” mean any organized functions held in House common areas (e.g. Junior Common Rooms, Dining Halls, Grilles) or non-residential facilities (e.g. the Student Organization Center at Hilles, Ticknor Lounge) where alcohol is served.
2. All social events on campus must be registered and approved. See Additional Policies and Procedures Related to Specific Types of Social Events for specific registration and approval requirements.
    1. Alcohol is generally permitted only at social events that are limited to members of the Harvard community and their escorted guests. In certain limited circumstances alcohol also may be permitted at day or evening events that are open to the public, but only with prior approval of the Dean of Students Office.
    2. Alcohol is never permitted at late-night social events that are open and advertised to attendees beyond the Harvard community.
3. Ample water, non-alcoholic beverages, and food must be provided for the duration of any social event at which alcohol will be available. Water and non-alcoholic beverages must be as visible and accessible as the alcoholic beverages that are being served. Adequate food also must be provided. Alcohol may not be served at an event until water, non-alcoholic beverages, and food are also available; alcohol may not be served if the water, non-alcoholic beverages, or food become unavailable.
4. Age Verification, Alcohol Service, and Monitoring
    1. Proper verification of age is required at social events on campus where alcohol is served.
    2. Acceptable identification for age verification of Harvard affiliates is a valid state or government ID accompanied by a Harvard University ID. Failure to have both of these pieces of identification will result in a request for additional forms of ID, and may result in the denial of alcohol service. Non-Harvard guests must show at least two forms of ID, one of which must be a valid state or government ID.
    3. A “best practices” system for making sure that alcohol is provided only to those who are of age must be established and implemented. One such system is to identify those who are 21 and older by a non-transferable identifier (e.g. wristbands).
    4. Social event attendees will not be served more than one alcoholic beverage at a time.
    5. For social events on campus with alcohol that are hosted by student organizations, Houses, or College offices or centers, a Student Event Services (SES) Team (comprised of TIPS – Training for Intervention Procedures – trained bartenders) must be engaged to handle both age verification and the service of alcohol. With the approval of the Dean of Students Office, College offices or centers may choose instead to use a licensed and insured vendor to provide bartending service.
    6. In the case of small House events where attendance is limited only to the residents of the host House, either a member of the House residential life staff or a member of an SES Team may handle age verification. A member of the SES Team, the House residential life staff, or the student organizers (provided they are of legal drinking age) may serve the alcohol.
    7. Throughout the duration of all social events on campus, those in charge of age verification and alcohol service must continue to monitor and ensure that alcohol is not provided to students who are under 21 and that students who are of legal drinking age are not over-served. If any non-compliance is not corrected, then the event will be terminated.
    8. In the case of House events, member(s) of the House staff must be present for the duration of the event. If a staff member has concerns that the event is not

being properly monitored (for example, IDs are not being checked to identify those who are over or under 21, alcohol is being provided to those under 21, or alcohol is being consumed by those under 21), the staff member will speak with the host(s) about these concerns and ensure that the identified issues are corrected.

5. Quantity and Types of Alcohol
    1. The amount of alcohol purchased must be scaled for the reasonably anticipated number of attendees of legal drinking age.
    2. With the approval of Faculty Dean or authorized designee for House events and College staff for other campus events, kegs are generally permitted in the Houses and at College events, although they continue to be banned at athletic facilities and athletic events. Students must comply with all House or other protocols for registration, storage, and disposal of kegs.
    3. Only beer, wine, and malt beverages may be served at social events on campus. These beverages must not have an alcohol content that exceeds 15 percent.
    4. “Bring Your Own Beer/Booze” (BYOB) events are not permitted. All alcohol served at an event must be purchased and provided by the event host(s).
6. Serving Times
    1. The service of alcohol at social events on campus may not last longer than five hours. With the exception of events that are two hours or less, last call must occur 30 minutes prior to the scheduled conclusion of the event and alcohol service must end 15 minutes prior to the scheduled conclusion of the event.
7. Advertising
    1. Printed and electronic posters for social events on campus may mention alcohol, provided they use the following specific and approved language:
        1. “Non-alcoholic beverages available. Beer 21+”
        2. “Non-alcoholic beverages available. Beer and wine 21+”
    2. Only the Dean of Students Office may approve variations to this standard language for campus-wide advertisements, regardless of where the event is to be held. A House may approve variations to the standard language for events to be held within the House and advertised only within the House. Advertisements may contain no other references to alcohol, including without limitation: price of alcoholic beverages; types of beers, wines, or mixed drinks available; or photos or logos of alcoholic beverages.
8. Licenses
    1. If there will be a direct charge (such as a cash bar) or indirect charge (such as an event admission fee) for alcohol, a one-day alcohol license from the City of Cambridge is required.
    2. An officer of the University will obtain alcohol licenses for College-sponsored events.
    3. Social events on campus licensed by the City of Cambridge must conclude no later than 2 a.m. Social events in the Houses not requiring a license must conclude at a reasonable time, as determined by the Faculty Dean and House Committee. Social events in other campus locations not requiring a license must conclude at a reasonable time, as determined by DSO.
9. Other Regulations
    1. Activities that promote high-risk drinking, such as excessive and/or rapid consumption of alcohol, particularly of a competitive nature, are not permitted. It is expected that hosts will plan parties where drinking is not the central activity.
    2. Alcohol companies, services, or distributors may not provide support (i.e. monetary, gifts in kind, products) for social events on campus.
    3. To comply with fire safety regulations, events in spaces without Certificates of Inspection may not exceed capacity of 49 persons.
    4. Police security is required when the event is open to the broader Harvard College community and may otherwise be required at the discretion of the Faculty Dean, Resident Dean, or DSO.

**Additional Policies and Procedures Related to Specific Types of Social Events**

In addition to the policies and procedures set forth above, the following policies and procedures also apply to certain social events with alcohol.

1. Small House Committee and House Events (e.g. Stein Clubs, Happy Hours, House Dinners)
    1. Events can only be advertised in the host House and must follow the guidelines outlined in the *House Committee Events Resource* (available through the DSO).
    2. Events are limited to House residents and their invited guests. Guests must present a college or valid government or state ID and be signed in by their hosts at the door.
2. Large House-Sponsored Events (e.g. Formals, House Dances, House Theatre)
    1. Approval for all such events is required from both the House and DSO. The event must be registered through the DSO using the Event Registration Form found at https://roombook.harvard.edu/ and follow all guidelines related to event registration, ticketing, and management in the *HoCo Events Resource*.
    2. Large House events are ordinarily held in a common area of a House. In special cases, with the approval of the Faculty Dean and DSO, an event may be held in an outside facility, but only if adequate arrangements for transportation have been made and the off-campus venue is licensed to serve alcohol, if alcohol is to be served.
    3. Events are generally limited to House residents and their invited guests, but in some cases, at the discretion of the House and DSO, other members of the Harvard community may be invited. Guests must present a college or valid government or state ID and be signed in by their hosts at the door.
    4. Events must be ticketed through the Harvard Box Office and must follow all applicable guidelines for capacity.
    5. If the event is held in the Quad, additional shuttles from Harvard Transportation Services will be provided by DSO.
    6. Transportation back to campus is required for late-night events sponsored by the College and held off campus. The sponsoring House, Office, or Center must arrange and pay for transportation.
    7. Events must end no later than 11:00 PM Sunday-Thursday, and 2:00 a.m. Friday-Saturday. The only exception to this rule is that, with prior permission from the Faculty Dean and DSO, House Formals held Sunday-Thursday may end at any time up to 2:00 a.m.
3. Student Organization Events:
    1. Student organization events with alcohol held in House common areas and non-residential facilities must be registered with the DSO. All House and facility-specific registration requirements must also be met in order for such events to be approved.
    2. SES Beverage Servers are required when alcohol is served. SES Event Supervisors may be required to monitor events to ensure that student hosts are effectively implementing the Event Plan established with the DSO.
    3. Policies relating to Student Organization events can be found online at the DSO website.

**Continuation of Pilot Program for 2019-2020 permitting mixed drinks at House Formals only**

During the 2019-20 academic year, the College will again permit mixed drinks (drinks containing hard liquor) to be served at House formals held on or off campus only if the following conditions are met:

1. The kinds of mixed drinks to be served must be approved in advance by both the Faculty Deans and the DSO.
2. All drinks containing hard liquor must include mixers and may not contain more than one standard measure of alcohol.
3. Professional bartenders from a licensed and insured vendor approved by DSO must be hired to mix and serve drinks.
4. Beer, wine, and malt beverages can be served open bar. Mixed drinks may only be offered for purchase or limited drink ticket system developed and approved by the Faculty Deans and DSO to ensure that appropriate limits are in place.

## Student Business Activity

Harvard permits undergraduates to undertake modest levels of business activities on campus. Students may be required to move businesses entirely off-campus should they disrupt residential life, compromise the educational environment, or jeopardize the nonprofit status of the University or any exemption of its income or property from federal, state or local taxation.

A “business activity” is any activity carried on by a student that is intended to or does generate revenue or trade, whether or not for profit, and is not an individual employment or independent contractor relationship.

Compliance with the following general restrictions, mentioned elsewhere in the *Handbook*, also apply to student business enterprises. Use of the Harvard name or logo in conjunction with a business enterprise is prohibited (see Use of the Harvard Name and Insignia). All regulations concerning safety and the use of rooms must be observed (see Meetings and Events). The compilation or redistribution of information from University directories (printed or electronic) is forbidden (see Privacy of Information). Use of library resources for commercial purposes is prohibited (see The Use of Libraries, Research Support and Use of Collections). General regulations concerning use of computers and networks must be observed (see Use of Computers and Networks). Excessive data traffic on Harvard’s computer network is not allowed.

In addition, care must be taken to avoid excessive use of University resources, misuse of University facilities and information provided primarily for Harvard’s teaching and research missions, and activities that might jeopardize the tax-exempt status of the University or its property. Students must establish a means of communication with customers separate from those provided by the University for educational purposes. Students may not list their dormitory address, campus mailing address or telephone number, Harvard email or Internet address, or Harvard website in conjunction with any business enterprise, or in any way suggest that Harvard endorses or sponsors the business. Harvard reserves the right to restrict or control student business use of its resources, facilities, academic product, copyrighted materials, and institutional data.

Student businesses are considered outside vendors by the College and must follow the *Handbook* rules concerning solicitation on campus (see Publicity and Solicitation). Sales activities are permitted only with permission and at the discretion of the office granting permission (e.g. the Director of Student Employment or the Dean of Students Office). Distribution of materials on campus must be conducted through Harvard Student Agencies. Student businesses are not allowed to poster or door-drop on campus.

Other areas of concern, which could cause the College to prohibit the student business, include:

- Excessive use of Harvard’s paper mail system.
- Activity by a student as a corporate agent or commercial solicitor for a business.
- Other activities that compromise the educational collegiality of the Harvard community by coloring with a profit motive the day-to-day interactions among students, faculty, and other College officers.
- Excessive foot traffic or movement of goods into or out of University buildings.
- Activities that interfere with roommates’ rights to use common spaces for their own residential purposes.
- Commitment of time and effort to a commercial activity to an extent that compromises a student’s academic or personal well-being.

Student businesses may be required to seek approval in advance for operations that directly impact University offices, operations, facilities, or resources.

## Other Regulations

Any student in possession of stolen goods is subject to disciplinary action.

Students may not bring into the University or use or transport any radioactive materials within its

property without authorization of the University's Department of Environmental Health and Safety.

Use of the names and insignia of Harvard College and Harvard University or any of its units by any student is permitted only as spelled out in the University Policy on the Use of the Harvard Names and Insignia. In particular, reference to "Harvard," "Harvard College," or "Harvard University," or suggestions of affiliation with the College or University in connection with any organization, publication, activity, or third party is allowable only with advance permission of the Dean of Harvard College or the Provost.

A student who commits an offense against law and order during a public disturbance or demonstration or who disregards the instructions of a proctor or other University officer at such a time is subject to disciplinary action and may be required to withdraw.

Students are requested not to engage on College property in any games that might annoy others, cause damage, or injure passersby.

Bicycles, roller blades, and skateboards may not be ridden in Harvard Yard or on sidewalks or other walkways and may not be parked on or adjacent to ramps providing access to the disabled. Moreover, violation of any motor vehicle registration and parking regulations (see Vehicle Registration and General Parking Regulations) can lead to disciplinary action.

No student shall be connected with any advertising medium (including the press, the Internet, or other public forum) or publication that makes use of the name of Harvard or Radcliffe or implies without permission of the University, through its title or otherwise, a connection with the University.

No firm, agency, organization, or individual shall solicit in a University dormitory at any time, for any purpose. Exceptions to this rule may be granted only by the Committee on College Life.

Distribution of printed matter in College buildings must be approved by the Office of the Dean of Harvard College, University Hall, First Floor (see Publicity and Solicitation).

Students who fail to pay their University bills by the prescribed date will be deprived of the privileges of the University and not allowed to graduate.

## Regulations Concerning the Use of University Resources

The Use of Libraries, Research Support and Use of Collections

Use of Computers and Networks

Use of Facilities

Privacy of Information

Electronic Communication

Email Accounts

Intellectual Property and Copyrighted Materials

Harvard University Identification Cards

Membership in the University affords students access to a wide array of resources including among others one of the world's greatest libraries, extensive computing and network facilities, laboratories, and works of art and architecture of immeasurable value. Access to these resources makes time at Harvard a special privilege, and students have both rights and responsibilities regarding their use. To safeguard the integrity of such resources, the University relies on its students to use them with care, appropriately, and as authorized; to respect the rights of others who also have access; and to observe the rules granting access to, and use of, those resources. Failure to abide by the rules governing their use ordinarily will result in disciplinary action.

**The Use of Libraries, Research Support and Use of Collections**

Harvard's libraries serve the University's students, faculty, staff and other authorized members of the scholarly community, advancing scholarship and teaching through a commitment to the creation of knowledge.

In order to provide an environment conducive to research, to ensure that Harvard's collections are secure, and to enable effective access to knowledge and data, users are expected to respect the regulations around use of library materials and property and to assist in the stewardship of library materials whenever possible. Harvard promotes an attitude and atmosphere of mutual respect, cooperation, and consideration among its library staff, and expects the same from its community of library users.

To protect its collections, a student who violates the use and lending policies of any Harvard library may be subject to overdue charges and/or disciplinary action. In particular, damage caused to any library materials or property, or unauthorized removal of any book or object from a library will result in disciplinary action.

Those with access to Harvard's library spaces and collections are required to acknowledge and abide by the Patron Agreement, which is outlined below:

*Every user of the Library has a responsibility to:*

- *Safeguard the integrity of library resources*
- *Respect any restrictions regarding access to and the use of those resources*
- *Report to library staff the theft, destruction, or misuse of library resources by others*
- *Respect the rights of others to the quiet use of library spaces*
- *Respect the authority of the library staff who are responsible for promoting and protecting access to library spaces and resources*

*The following activities are prohibited:*

- *Illegal copying*
- *Systematic exploitation for profit of library resources or materials*
- *Unauthorized removal of materials or property from the library*
- *Destruction, defacement, or abuse of library materials or property*
- *Use of library privileges for reasons other than personal research*
- *Possession of alcohol or other controlled substances within the library*
- *Possession of weapons of any kind within the library including, but not limited to: firearms, knives, razor blades, mace, or pepper spray*
- *Animals are not permitted in the library, with the exception of assistance and service animals*

*Those who fail to comply with library rules and regulations are subject to revocation of library privileges, disciplinary action, and legal prosecution. All library users are subject to the fines and penalties imposed by the University as well as the laws of the Commonwealth of Massachusetts.*

For every academic department or program, a Library Liaison is available to help with questions and to support your studies and research. Staff is also available to help navigate digital collections and tools; to locate, use and borrow materials; and to answer questions about lending policies across Harvard's library system. Full information about Library Liaisons and research assistance is available on their website.

**Use of Computers and Networks**

Using Harvard's network to download or share copyrighted music, movies, television shows or games without the permission of the copyright owner may result in legal sanctions, network termination, and/or disciplinary action.

Some file-sharing programs can transmit files on your computer to others in violation of copyright laws, with or without your knowledge. If these programs are on your computer, you will be held responsible for any copyright violations that may result.

Students who are provided access to University computer facilities and to the campus-wide communication network assume responsibility for their appropriate use. The University expects students

to be careful, honest, responsible, and civil in the use of computers and networks. Those who use wide-area networks (such as the Internet) to communicate with individuals or to connect to computers at other institutions are expected to abide by the rules for the remote systems and networks as well as those for Harvard's systems.

Be advised that, in addition to violating College rules, certain computer misconduct is prohibited by federal and state law and is, therefore, subject to criminal and civil penalties. Such misconduct includes knowingly gaining unauthorized access to a computer system or database; falsely obtaining electronic services or data without payment of required charges; intentionally intercepting electronic communications; and obtaining, altering, or destroying others' electronic information. Similarly, serious legal penalties may result from the use of Harvard's computers or network to violate copyright laws, as is possible with the use of peer-to-peer file-sharing programs. Moreover, a student may be held responsible for misuse that occurs by allowing a third-party access to the student's own computer, account, or network connection.

The basic rules for the appropriate use of computers and networks are outlined below. Other policies may be found on the Harvard University Information Technology website. Students are expected to abide by these rules and policies and to consult an official of Harvard University Information Technology prior to any activity that would appear to threaten the security or performance of University computers and networks. Failure to do so may result in disciplinary action.

**Use of Facilities**

Computer and network facilities are provided to students primarily for their educational use. These facilities have tangible value. Consequently, attempts to circumvent accounting systems or to use the computer accounts of others will be treated as forms of attempted theft.

Students may not attempt to damage or to degrade the performance of Harvard's computers and networks and should not disrupt the work of other users. Students may not attempt to circumvent security systems, or to exploit or probe for security holes in any Harvard network or system, nor may students attempt any such activity against other systems accessed through Harvard's facilities. Execution or compilation of programs designed to breach system security is prohibited unless authorized in advance. Students assume personal responsibility for the use of their accounts. Consequently, students may not disclose their passwords or otherwise make Harvard's facilities available to unauthorized individuals (including family or friends). Moreover, the possession or collection of others' passwords, PINs, private digital certificates, or other secure identification information is prohibited. Use of Harvard's computers and networks for business-related purposes without authorization is also prohibited. (See Student Business Activity.)

**Privacy of Information**

Information stored on a computer system or sent electronically over a network is the property of the individual who created it. Examination, collection, or dissemination of that information without authorization from the owner is a violation of the owner's rights to control their own property. Information technology personnel, however, may gain access to users' data or programs when it is necessary to maintain or prevent damage to systems or to ensure compliance with other University rules.

Computer systems and networks provide mechanisms for the protection of private information from examination. These mechanisms are necessarily imperfect and any attempt to circumvent them or to gain unauthorized access to private information (including both stored computer files and messages transmitted over a network) will be treated as a violation of privacy and will be cause for disciplinary action.

In general, information that the owner would reasonably regard as private must be treated as private by other users. Examples include the contents of electronic mailboxes, the private file storage areas of individual users, and information stored in other areas that are not public. That measures have not been taken to protect such information does not make it permissible for others to inspect it.

On shared and networked computer systems certain information about users and their activities is visible to others. Users are cautioned that certain accounting and directory information (for example, usernames and electronic mail addresses), certain records of file names and executed commands, and information stored in public areas, are not private. Nonetheless, such unsecured information about other

users must not be manipulated in ways that they might reasonably find intrusive; for example, eavesdropping by computer and systematic monitoring of the behavior of others are likely to be considered invasions of privacy that would be cause for disciplinary action. The compilation or redistribution of information from University directories (printed or electronic) is forbidden.

Harvard University Policy on Access to Electronic Information

Effective March 31, 2014, Harvard established a policy that sets out guidelines and processes for University access to user electronic information stored in or transmitted through any University system. This policy applies to all Schools and units of the University. Harvard College students should be aware that this policy applies to them.

**Electronic Communication**

Harvard neither sanctions nor censors individual expression of opinion on its systems. The same standards of behavior, however, are expected in the use of electronic mail as in the use of telephones and written and oral communication. Therefore, electronic mail, like telephone messages, must be neither obscene nor harassing (see Harassment and Obscene or Harassing Telephone Calls). Similarly, messages must not misrepresent the identity of the sender and should not be sent as chain letters or "broadcast" indiscriminately to large numbers of individuals. This prohibition includes unauthorized mass electronic mailings. For example, email on a given topic that is sent to large numbers of recipients should in general be directed only to those who have indicated a willingness to receive such email.

**Email Accounts**

Harvard student email accounts ordinarily will be made inoperable and deleted for those Harvard College or Graduate School of Arts and Sciences students who have been unenrolled for a period exceeding six consecutive terms. Students will be sent a notice to the email account one month prior to the closure, and again ten and five days prior to the closure, so that students may take steps to save any material they want to preserve elsewhere. If a student re-enrolls at a later period, a new student email account will be made available.

**Intellectual Property and Copyrighted Materials**

Computer programs written as part of one's academic work should be regarded as literary creations and subject to the same standards of misrepresentation as copied work (see Academic Integrity and Academic Dishonesty). In addition, attempts to duplicate, use, or distribute software or other data without authorization by the owner is prohibited.

All Harvard users must respect the copyrights in works that are accessible through computers connected to the Harvard network. Federal copyright law prohibits the reproduction, distribution, public display, or public performance of copyrighted materials without permission of the copyright owner, unless fair use or another exemption under copyright law applies. In appropriate circumstances, Harvard will terminate the network access of users who are found to have repeatedly infringed the copyrights of others, and may also take disciplinary action.

Information about the application of copyright law to peer-to-peer file sharing of music, movies and other copyrighted works is available at dmca.harvard.edu. Students with questions about copyright or this policy are invited to raise those questions with an appropriate Dean, tutor or academic officer.

**Harvard University Identification Cards**

All students receive a Harvard University Identification Card. ID cards are the property of Harvard University and are intended for University purposes only. The cards are required for admission to most Harvard activities and facilities including libraries, museums, dining halls, athletic buildings, and student residences. Some facilities may also require a sticker for entry. The front of the card and the magnetic stripes on the back, however, must be kept free from stickers.

First-term students should submit an ID card photo using Harvard University's ID Card Photo Submission Web Application. If a photo is successfully submitted, the Student ID card will be printed. When the first-term students arrive on campus, they must bring government-issued identifications to facilitate photo and identity validation before they can receive their Harvard ID cards. If a photo is not

successfully submitted using the ID Card Photo Submission Application, students will receive instructions from their school regarding when and where they will have an opportunity to have their ID card photo taken on campus, as well as when they can receive their Student ID card.

Students will keep their ID card while they are enrolled at Harvard University and are responsible for their ID card and the consequences of its misuse. ID cards are not transferable; students may not allow any other person to use their ID card for any purpose. Students who alter or falsify their ID card or produce or distribute false identification cards of any kind are subject to disciplinary action. Lost cards should be reported immediately through the student's ID account at the Campus Service Center website or at the Harvard University Campus Service Center, Smith Campus Center 807. There is a replacement fee of $25 every time a replacement card is issued.

Students must present their ID card or otherwise identify themselves upon request to any properly identified employee of the University. Surrendered ID cards will be transmitted immediately to the student's Resident Dean or other appropriate Dean.

## Fire Regulations

Fire alarms, smoke detectors, fire extinguishers, and sprinkler systems have been placed throughout the University for the protection of those who live and work in Harvard's buildings. Misuse of these systems endangers both life and property and can lead to disciplinary action, including requirement to withdraw, and possible criminal charges. For the same reason, violation of any of the fire safety or fire emergency regulations listed below must be considered a serious offense requiring serious disciplinary action.

- Any abuse of, or tampering with, fire alarm, smoke detector, sprinkler, or extinguisher systems is strictly forbidden. There is a fine, equal to the cost of replacement, for breaking the glass that covers the lock of a fire alarm. Similarly, there is a fine, equal to the cost of replacement, for any damage to a smoke detector. There is a fine, equal to the cost of replacement, damages, and clean up, for sprinkler activation resulting from negligence.
- Emergency exit doors in the Houses or dormitories between adjoining suites may be opened by special arrangement with the building manager and only with written agreement of all occupants of both suites.
- Emergency exit doors must not be blocked on either side by furniture or obstructions of any kind.
- Fire escapes are intended only for use in a fire; any other uses are prohibited.
- Flammable and combustible liquids and flammable gases are not permitted in Houses or dormitories.
- Falsely pulling any alarm, maliciously setting off a smoke detector alarm, or negligently activating the sprinkler system is illegal and may be punishable by a fine of up to $500 or imprisonment.
- Corridor and stairwell fire doors must be kept shut at all times.
- Use of fireplaces is prohibited.

## Threats Involving . . .

**Threats Involving Deadly Weapons, Explosives, Bombs, Chemical or Biological Agents, or Other Deadly Devices or Substances**

The following provision of Massachusetts law concerning certain kinds of threats underscores why such behavior must be treated by the College as an actionable offense:

> Whoever willfully communicates or causes to be communicated, either directly or indirectly, orally, in writing, by mail, by use of a telephone or telecommunication device including, but not limited to, electronic mail, Internet communications and facsimile communications, through an electronic communication device or by any other means, a threat: (1) that a firearm, rifle, shotgun, machine gun or assault weapon, as defined in section 121 of chapter 140, an explosive or incendiary device, a dangerous chemical or biological agent, a poison, a harmful radioactive substance or any other device, substance or item capable of causing death, serious bodily injury or substantial property damage, will be used at a place or location, or is present or will be present at a place or

> location, whether or not the same is in fact used or present; or (2) to hijack an aircraft, ship or common carrier thereby causing anxiety, unrest, fear or personal discomfort to any person or group of persons shall be punished by imprisonment in the state prison for not more than 20 years or imprisonment in the house of correction for not more than 2 1/2 years, or by fine of not more than $10,000, or by both such fine and imprisonment.
>
> Whoever willfully communicates or causes to be communicated such a threat thereby causing either the evacuation or serious disruption of a school, school related event, school transportation, or a dwelling, building, place of assembly, facility or public transport, or an aircraft, ship or common carrier, or willfully communicates or causes serious public inconvenience or alarm, shall be punished by imprisonment in the state prison for not less than 3 years nor more than 20 years or imprisonment in the house of correction for not less than 6 months nor more than 2 1/2 years, or by fine of not less than $1,000 nor more than $50,000, or by both such fine and imprisonment.
>
> [Massachusetts General Laws, c. 269 § 14(b)-(c)]

In the event that a student is threatened by any of the means above, contact the HUPD at 617-495-1212.

## Firearms, Explosives . . .

**Firearms, Explosives, Combustible Fuels, Firecrackers, and Dangerous Weapons**

Possession and/or use on University property of firearms or other dangerous weapons (as defined below), or ammunition, explosives, combustible fuels, firecrackers, and potential ingredients thereof is forbidden by University policy. The College may make occasional exceptions, on a case-by-case basis, for students who wish to participate in club sports that involve the use of dangerous weapons (as defined below), but in all such cases advance approval must be obtained from both the HUPD and the Club Sports Office, and the participating students must comply with any and all College rules and requirements for use and storage of the weapons. College rules require, at a minimum, that any weapons shall be stored in a secure place and not in a student's room. The applicable Massachusetts law is as follows:

> For the purpose of this paragraph "firearm" shall mean any pistol, revolver, rifle, or smoothbore arm from which a shot, bullet or pellet can be discharged.
>
> Whoever, not being a law enforcement officer, and notwithstanding any license obtained by the person pursuant to chapter 140, carries on the person a firearm, loaded or unloaded, or other dangerous weapon in any building or on the grounds of any elementary or secondary school, college or university without the written authorization of the board or officer in charge of such elementary or secondary school, college or university shall be punished by a fine of not more than one thousand dollars or by imprisonment for not more than two years, or both. A law enforcement officer may arrest without a warrant and detain a person found carrying a firearm in violation of this paragraph.
>
> Any officer in charge of an elementary or secondary school, college or university or any faculty member or administrative officer of an elementary or secondary school, college or university that fails to report violations of this paragraph shall be guilty of a misdemeanor and punished by a fine of not more than five hundred dollars.
>
> [Massachusetts General Laws, c. 269 § 10(j)]

Under Massachusetts law, the definition of dangerous weapons includes many items designed to do bodily injury:

> … any stiletto, dagger or a device or case which enables a knife with a locking blade to be drawn at a locked position, any ballistic knife, or any knife with a detachable blade capable of being propelled by any mechanism, dirk knife, any knife having a double-edged blade, or a switch knife, or any knife having an automatic spring release device by which the blade is released from the handle, having a blade of over one and one half inches, or a slung shot, blowgun, blackjack, metallic knuckles or knuckles of any substance which could be put to the same use with the same or similar effect as metallic knuckles, nunchaku, zoobow, also known as klackers or kung fu sticks,

> or any similar weapon consisting of two sticks of wood, plastic or metal connected at one end by a length of rope, chain, wire or leather, a shuriken or any similar pointed starlike object intended to injure a person when thrown, or any armband, made with leather which has metallic spikes, points or studs or any similar device made from any other substance or a cestus or similar material weighted with metal or other substance and worn on the hand, or a manrikigusari or similar length of chain having weighted ends…
>
> [Massachusetts General Laws, c. 269 § 10(b)]

Students should recognize that even when they are away from the University, Massachusetts law requires a permit or firearms identification card or compliance with other specialized rules (depending upon the type of weapon) for possession of any firearms. The definition of firearms is broad, and includes pistols or guns operated by air, carbon dioxide, or other gases. Carrying any firearm (even if unloaded) in violation of the law is punishable by imprisonment with a mandatory minimum sentence of eighteen months, which cannot be suspended or reduced. [Massachusetts General Laws, c. 269 § 10(a)]. Students should consult the local police department in the city or town in which they reside if they intend to possess firearms on non-University property, in order to assure strict compliance with the applicable statutes.

## Betting and Gambling

Students are advised that many gambling activities are illegal under Massachusetts law. The state may bring a criminal action requiring that the winner of a bet forfeit double the value of the winnings, and anyone who loses money “at cards, dice or other game” may recover the losses from the winner through civil action. Bookmaking is illegal: there are severe penalties, up to a fine of $3,000 and three years in prison, for keeping, occupying, or being found in any place used “for registering bets, or buying or selling [betting] pools, upon the result of a trial contest of skill, speed, or endurance of man, beast, bird, or machine, or upon the result of a game, competition, political nomination, appointment or election.” Use of the telephone or mail for gambling activities is also illegal. Provisions of federal law also govern organized gambling activities. The Cambridge License Commission dictates that under no circumstances are casino nights, Las Vegas nights, or any other type of gambling allowed in the City of Cambridge.

Under NCAA Bylaws, a student athlete who is involved in betting or gambling activities relating to intercollegiate athletics risks loss of eligibility. Students participating in intercollegiate athletics are expected to be familiar with the *Harvard University Student-Athlete Handbook*, which is distributed by the Department of Athletics.

## Hazing

### College Policy on Hazing

Students are advised that Massachusetts law expressly prohibits any form of hazing in connection with initiation into a student organization. The relevant statutes are provided below. The law applies to all student groups, whether or not officially recognized, and to practices conducted both on- and off-campus. All such student groups (including not only groups officially recognized by the College but also final clubs, fraternities, sororities, and the like) must provide the Dean of Students Office with contact information for all undergraduate officers and must sign and return to the Dean of Students Office the College’s non-hazing attestation form by September 30.

The term “hazing,” under Massachusetts law, means: “any conduct or method of initiation… which willfully or recklessly endangers the physical or mental health of any student or other person.” The definition specifically includes “whipping, beating, branding, forced calisthenics, exposure to the weather, forced consumption of any food, liquor, beverage, drug or other substance, or any other brutal treatment or forced physical activity which is likely to adversely affect the physical health or safety of any such student or other person, or which subjects such student or other person to extreme mental stress, including extended deprivation of sleep or rest or extended isolation.” [Massachusetts General Laws, c. 269 § 17] Notwithstanding any other provisions of this section to the contrary, consent shall not be available as a defense to any prosecution under this action. The failure to report hazing also is illegal,

under Massachusetts law.

Hazing is a crime punishable by fine and/or imprisonment. The Administrative Board of the College will consider all reports of hazing in the normal course of this oversight, taking disciplinary action in appropriate cases, and will report confirmed incidents to appropriate law enforcement officials. Where serious harm, or the potential for serious harm, has come to any person as a result of hazing by members of a student group, whether or not such group is officially recognized by the College (either on-campus or off-campus), and the individual or individuals directly responsible are not identified, the host or hosts of the event or activity will be held personally responsible. If the hosts are not identified, the officers of the organization will be held personally responsible. In considering such cases, the Administrative Board will apply the College's help-seeking policy (set forth within the section on Drugs and Alcohol, subsection "Disciplinary Action"), and also may consider as mitigating factors with respect to possible disciplinary action the efforts made by the hosts or officers to prevent the harmful or potentially harmful situation, as well as their cooperation with the College's investigation of the situation. A memorandum detailing the specifics of this law is available in the Office of the Dean of Harvard College (617-495-1558).

**Massachusetts Hazing Statute**

Section 17. Whoever is a principal organizer or participant in the crime of hazing, as defined herein, shall be punished by a fine of not more than three thousand dollars or by imprisonment in a house of correction for not more than one year, or both such fine and imprisonment.

The term "hazing" as used in this section and in sections eighteen and nineteen, shall mean any conduct or method of initiation into any student organization, whether on public or private property, which wilfully or recklessly endangers the physical or mental health of any student or other person. Such conduct shall include whipping, beating, branding, forced calisthenics, exposure to the weather, forced consumption of any food, liquor, beverage, drug or other substance, or any other brutal treatment or forced physical activity which is likely to adversely affect the physical health or safety of any such student or other person, or which subjects such student or other person to extreme mental stress, including extended deprivation of sleep or rest or extended isolation.

Notwithstanding any other provisions of this section to the contrary, consent shall not be available as a defense to any prosecution under this action.

Section 18. Whoever knows that another person is the victim of hazing as defined in section seventeen and is at the scene of such crime shall, to the extent that such person can do so without danger or peril to himself or others, report such crime to an appropriate law enforcement official as soon as reasonably practicable. Whoever fails to report such crime shall be punished by a fine of not more than one thousand dollars.

Section 19. Each institution of secondary education and each public and private institution of post-secondary education shall issue to every student group, student team or student organization which is part of such institution or is recognized by the institution or permitted by the institution to use its name or facilities or is known by the institution to exist as an unaffiliated student group, student team or student organization, a copy of this section and sections seventeen and eighteen; provided, however, that an institution's compliance with this section's requirements that an institution issue copies of this section and sections seventeen and eighteen to unaffiliated student groups, teams or organizations shall not constitute evidence of the institution's recognition or endorsement of said unaffiliated student groups, teams or organizations.

Each such group, team or organization shall distribute a copy of this section and sections seventeen and eighteen to each of its members, plebes, pledges or applicants for membership. It shall be the duty of each such group, team or organization, acting through its designated officer, to deliver annually, to the institution an attested acknowledgement stating that such group, team or organization has received a copy of this section and said sections seventeen and eighteen, that each of its members, plebes, pledges, or applicants has received a copy of sections seventeen and eighteen, and that such group, team or organization understands and agrees to comply with the provisions of this section and sections seventeen and eighteen.

Each institution of secondary education and each public or private institution of post secondary education shall, at least annually, before or at the start of enrollment, deliver to each person who enrolls

as a full time student in such institution a copy of this section and sections seventeen and eighteen.

Each institution of secondary education and each public or private institution of post secondary education shall file, at least annually, a report with the board of higher education and in the case of secondary institutions, the board of education, certifying that such institution has complied with its responsibility to inform student groups, teams or organizations and to notify each full time student enrolled by it of the provisions of this section and sections seventeen and eighteen and also certifying that said institution has adopted a disciplinary policy with regard to the organizers and participants of hazing, and that such policy has been set forth with appropriate emphasis in the student handbook or similar means of communicating the institution's policies to its students. The board of higher education and, in the case of secondary institutions, the board of education shall promulgate regulations governing the content and frequency of such reports, and shall forthwith report to the attorney general any such institution which fails to make such report.

[Massachusetts General Laws, c. 269 § 17, 18 and 19]

## The Administrative Board of Harvard College, The Harvard College Honor Council, and the Student-Faculty Judicial Board

Three Boards exist to hear the cases or requests of Harvard undergraduates. They are overseen by the Office of Academic Integrity and Student Conduct.

- The Administrative Board reviews all undergraduate records, hears all undergraduate petitions for exceptions to the administrative rules of the College, and handles any undergraduate disciplinary case involving social misconduct for which there is governing faculty legislation and/or for which there is precedent for interpreting and applying the rules and standards of conduct of the College.
- The Harvard College Honor Council reviews all undergraduate disciplinary cases involving violations of the Honor Code and academic dishonesty.
- The Student-Faculty Judicial Board handles only disciplinary cases for which there is no clear governing precedent, policy, or Faculty legislation; for which the procedures of the Administrative Board are inappropriate; or the disposition of which will have profound effects on the community in general.

The following is a brief introduction to these Boards. For a more detailed description, students may consult with their Resident Dean or visit the website for the Office of Academic Integrity and Student Conduct.

## The Administrative Board of Harvard College

Members of the Administrative Board

Administrative Board Petitions and Cases

Procedures of the Administrative Board

Actions of the Administrative Board

Administrative Board Actions and Letters of Recommendation

Readmission after Requirement to Withdraw for Disciplinary or Academic Reasons

The Administrative Board was established by the Faculty of Arts and Sciences in 1890. The Board's authority to handle the routine College administrative and disciplinary matters derives directly from the Faculty. All meetings and discussions of the Administrative Board are confidential.

Over its history the Administrative Board has developed procedures and practices to guide its work and decisions. These practices include various opportunities and options to assist students in their transactions with the Board. Among others, these include: a student's option to appeal; the opportunity to meet personally with a subcommittee of the Board in some disciplinary cases; the option to have present during a personal appearance at the subcommittee meeting an adviser in addition to one's

Resident Dean; the ability to take up very routine matters with the Registrar or House and Dean of Students offices.

**Members of the Administrative Board**

By design, the members and permanent guests of the Board occupy positions well-suited to understand a student's petition in light of the College's standards and rules. Thus, they include both teaching members of the Faculty and several senior administrators. However, the Resident Deans make up the majority of the regular participants of the Administrative Board and together provide students with a direct link to the Board. Students may consult with their Resident Dean about any concerns they have. In addition to academic questions, such as choice of concentration or changes in programs, students frequently raise questions of a more personal nature with their Resident Dean.

**Administrative Board Petitions and Cases**

The Administrative Board acts on different types of petitions and cases, categorized as routine and special petitions, disciplinary cases involving social misconduct, and academic review. Students may refer to the website for the Administrative Board for more information on the number of petitions and cases, category by category, considered by the Board in the previous five years.

The full Board hears all academic review cases and disciplinary cases involving social misconduct. Violation of the standards of conduct in the community and disruptive behavior are typical of the disciplinary cases it handles. After the close of each term, the Board reviews all unsatisfactory academic records and determines what action, if any, should be taken.

**Procedures of the Administrative Board**

The Administrative Board decides its cases and petitions according to well-established standards and the specific rules and policies established by the Faculty and the University, taking into account the Board's understanding of the student's particular circumstances. All Board actions follow essentially the same procedures.

In arriving at any decision, the Administrative Board pays close attention to the academic and personal growth of the students, both as individuals and as members of a residential academic community. Just as the Board depends heavily on the knowledgeable participation of the Resident Deans, the Board itself may be the single most important resource available to the Resident Deans who routinely assist students with academic and residential matters.

***Petitions***

Board actions ordinarily begin with a discussion between the student and the Resident Dean. At that time the student and the adviser review the student's plans or situation and the various options available. Many matters can be resolved through the use of petitions. Some are so common that the College has a standard form by which the student may request (and the Board may take) action; special petitions may require that the student submit a written statement, explaining the particular circumstances of the request.

***Non-peer and peer disputes that do not involve allegations of sexual or gender-based harassment***

Disciplinary cases also begin with a conversation between the student, the student's Resident Dean, and the Secretary of the Administrative Board or designee, during which they discuss the incident, the relevant College rules or standards of conduct, and possible courses of action. Since the Board takes great care with disciplinary cases, the initial conversation may lead to several subsequent conversations. For more information on Board procedures visit the website for the Administrative Board.

Once the student and Resident Dean have a sound understanding and description of the incident, they present it to the Board as soon as possible. If it is likely that the Board will take formal disciplinary action, the student may choose to appear before a subcommittee of the Board personally when the case is discussed, and, if so, may choose to have another officer of the University with an appointment in the Faculty of Arts and Sciences attend as the

personal adviser. Disciplinary cases in which the facts are in dispute or which require investigation may be referred, at the discretion of the Dean of Harvard College, to a subcommittee of the Administrative Board which may work with the assistance of a fact finder.

A complaint or allegation of wrongdoing against a Harvard undergraduate may be filed in writing with a Resident Dean or the Dean of Harvard College by a member of the Faculty or other officer of the University, or by a staff member, student or other member of the community. The College will decide whether to issue a charge and, if so, against whom and for what. Complaints must ordinarily be brought to the College in a timely manner. The Board typically cannot resolve peer dispute cases in which there is little evidence except the conflicting statements of the principals. Therefore, students are asked to provide as much information as possible to support their allegations. Based on that information and any other information obtained through investigation, the Board will decide whether to issue a charge. If a charge is issued, the investigation will continue further and the Board will decide the case.

The Administrative Board may independently initiate a charge against a student, and usually does so when a student has been charged with a crime in a court of law. When court action is pending or in progress, the Administrative Board may delay or suspend its own review process, in recognition of the student's criminal defense interests.

Disciplinary cases are ordinarily considered by the Administrative Board as quickly as is reasonably possible, given the Board's schedule and the need to investigate matters carefully. (The Board does not meet during the summer months.) A disciplinary matter concerning a student on leave of absence will also be handled as quickly as possible, and no student on a leave of absence will be allowed to register until any pending disciplinary matter has been resolved. In the case of alleged serious criminal behavior, the College may place a student involuntarily on a leave of absence. Students are expected to comply with all disciplinary rules from matriculation until the conferring of the degree. A degree will not be granted to a student who is not in good standing or against whom a disciplinary charge is pending.

#### *Sexual or Gender-Based Harassment*

Though the Faculty of Arts and Sciences has established Procedures for investigating violations of the University's Policy on Sexual and Gender-Based Harassment, the College remains responsible for student discipline through the Administrative Board. Any disciplinary proceedings against a College student based on allegations of a violation of the Policy must be conducted in a manner consistent with the University Procedures. The disciplinary procedures that apply to allegations of sexual or gender-based harassment brought against any undergraduate student may be found in full here.

#### *Academic Review*

Finally, when the Board reviews all unsatisfactory records at the end of each term and the Resident Deans present each such record with a description of the factors leading to it, these presentations, too, are based on their conversations with the students and usually include supporting or explanatory information from the course instructors or the students' advisers.

#### *Reconsideration and Appeals*

A student may ask that any decision of the Administrative Board be reconsidered provided that new materially relevant information becomes available or there is reasonable evidence of a procedural error. A student has the option to appeal some disciplinary decisions of the Administrative Board to the Faculty Council. Information on this process may be obtained from the student's Resident Dean, the Secretary of the Administrative Board (University Hall, Ground Floor North), or the Secretary of the Faculty (University Hall, First Floor South).

Appeals involving cases of sexual or gender-based harassment are described in the University Procedures as well as in the FAS Procedures.

## Actions of the Administrative Board

It should be noted that students are considered in good standing when they are not on probation and have not been required to withdraw, dismissed, or expelled from the College for either academic or disciplinary reasons. Warnings and admonitions do not affect a student's good standing.

In **disciplinary cases**, if the Board determines that wrongdoing occurred, it may take the following actions:

1. *Warn or Admonish:* a reprimand to a student whose behavior violates the rules or standards of conduct of the community. A warning becomes part of the student's official record, but is not considered a formal disciplinary action.

2. *Disciplinary Probation:* a strong warning to a student whose conduct gives serious cause for concern. Probation is a formal disciplinary action of the College and becomes part of the student's official record.

During the period of time (to be specified by the Board) that a student is on probation, any further instance of misconduct will cause the Board seriously to consider requiring the student to withdraw from the College. Students on probation must be especially conscientious about their behavior and responsibilities. If the offense is related to participation in extracurricular activity, the Board may at its discretion restrict such participation; in cases in which management of time appears to contribute to the problem, the Board may require that the student obtain the Board's permission for participation in each individual activity. The Board may also attach additional requirements to probation. It is the Board's hope that the structure imposed by probation will help students amend their conduct so as to meet the standards of this community. Failure to do so is a grave matter, ordinarily leading to further disciplinary action, including requirement to withdraw. Students placed on disciplinary probation are ordinarily relieved of probation at the end of a set period of time (specified by the Board in its decision), if they have maintained satisfactory conduct.

Students on probation may not receive a degree until they have been relieved of probation by the Administrative Board.

3. *Requirement to Withdraw for Disciplinary Reasons:* action taken in serious disciplinary cases indicating that the student's behavior is unacceptable in this community. Requirement to withdraw is a formal disciplinary action of the College and becomes part of the student's official record. Requirement to withdraw ordinarily is effective immediately upon vote of the Administrative Board.

For students who have been required to withdraw, the rules regarding financial aid and financial obligations (room rent, board, etc.) are the same as for undergraduates who go on leave of absence (see Students' Financial Obligations**)**. Students who are required to withdraw from the University are not entitled to an identification card until they have been officially readmitted (see also Harvard University Identification Cards).

A student who is required to withdraw for disciplinary reasons is not in good standing until readmitted, and may not participate in any academic exercises or extracurricular activities. Students may not receive a degree until they have been readmitted to good standing in the College. In order to be readmitted, the student ordinarily must have been away from the College for at least one but ordinarily two or more full terms and must have shown an acceptable record of performance during a substantial period (at least six consecutive months) of regular employment. Employment must be full-time, paid, supervised and evaluated, and not in a business owned or controlled by the student's family. Without exception, students who have been required to withdraw must petition the Board to be readmitted to the College, and the Board's decision will depend on its judgment of the student's readiness to rejoin the College community (see also Readmission after Requirement to Withdraw for Disciplinary or Academic Reasons). **A student who has twice been required to withdraw from the College will ordinarily not be readmitted. No student who for disciplinary reasons has been required to withdraw for the second and final time or dismissed from Harvard College may ordinarily enroll in the Harvard Summer School or in the Extension School.**

4. *Dismissal:* action taken in serious disciplinary cases whereby a student's connection with the University is ended by vote of the Faculty Council. (The action taken by the Board is a vote of requirement to withdraw with a recommendation to the Faculty Council that the student be dismissed.) Dismissal does not necessarily preclude a student's return, but readmission is granted

rarely and only by vote of the Faculty Council. A dismissed student is not in good standing until readmitted.

5. *Expulsion:* the most extreme disciplinary action possible. It signifies that the student is no longer welcome in the community. Expulsion must be voted by the Faculty Council. (The action taken by the Board is a vote of requirement to withdraw with a recommendation to the Faculty Council that the student be expelled.) A student who is expelled can never be readmitted and restored to good standing.

In cases of **academic review** the Administrative Board can take any of the following actions:

1. *Academic Probation:* a serious warning to a student whose academic performance for the term is unsatisfactory. Academic probation is a formal action of the Administrative Board and becomes part of the student's official record.

During the time that a student is on academic probation, any further instance of unsatisfactory academic progress will cause the Administrative Board to give serious consideration to requiring the student to withdraw from the College, ordinarily for two terms. A student on probation must attend all classes and be especially conscientious about all academic responsibilities. If the unsatisfactory academic record is related to participation in extracurricular activity, the Administrative Board may at its discretion restrict participation; in cases in which management of time appears to be the problem, the Administrative Board may require the student to obtain the Board's permission for participation in each individual extracurricular activity. The Board may also attach additional requirements to probation. It is the hope of the Administrative Board that the structure imposed by probation will help the student resume satisfactory progress toward the degree. Failure of the student to do so is a grave matter and will ordinarily result in requirement to withdraw.

A student placed on probation for academic reasons is relieved of probation at the end of the next completed term if the record is satisfactory (including the passing of at least three courses). Students on probation may not receive a degree until they have been relieved of probation by the Administrative Board.

2. *Requirement to Withdraw for Academic Reasons:* action that may be taken in the following circumstances reflecting the Board's judgment that the record indicates that the student should be given time to reassess academic goals and plans:

- in the case of a student who has failed to have a satisfactory record for two consecutive terms;
- at any return of grades in the case of any student, whether or not previously on probation, whose record fails to meet the minimum requirements (see also Minimum Requirements);
- in the case of serious neglect of work followed by an unsatisfactory record in any term, even though the student has met the minimum requirements.
- Requirement to withdraw for academic reasons is a formal action of the College and becomes part of the student's official record.

Students who have been required to withdraw for academic reasons should consult closely with their Resident Dean regarding financial aid and financial obligations (room rent, board, etc.), which vary in certain respects from the obligations for undergraduates who go on leave of absence or who are required to withdraw for disciplinary reasons. Students who are required to withdraw from the University are not entitled to an identification card until they have officially been readmitted (see also Harvard University Identification Cards).

A student who is required to withdraw for academic reasons is not in good standing, and may not participate in any academic exercises or extracurricular activities. Students may not receive a degree until they have been readmitted to good standing in the College. At the end of the period of withdrawal, the student may be readmitted on (academic) probation, and relieved of (academic) probation at the end of that term provided the record is satisfactory (including the passing of at least three courses). In order to be readmitted, the student ordinarily must have been away from the College for at least one but ordinarily two or more full terms and must have shown an acceptable record of performance during a substantial period (at least six consecutive months) of

full-time paid employment. Employment must be full-time, paid, supervised, and evaluated, and not in a business owned or controlled by the student's family.

Without exception, students who have been required to withdraw must petition the Board to be readmitted to the College, and the Board's decision will depend on its judgment of the student's readiness to rejoin the College community (see also Readmission after Requirement to Withdraw for Disciplinary or Academic Reasons). A student who has twice been required to withdraw from the College will ordinarily not be readmitted. Although Exclusion from a Course is an action the Board will have taken prior to academic review, such evidence of neglect of work resulting in a failing grade weighs heavily in the Board's consideration of and response to unsatisfactory records.

Should a first unsatisfactory record result from especially compelling and well-documented extenuating circumstances, the Board could decide to Take No Action and warn students about their academic record instead of placing them on academic probation. However, an unsatisfactory record remains so regardless of the action taken by the Board. Therefore all students who have an unsatisfactory record must take care to ensure that they earn all satisfactory grades during their next term in the College or a second unsatisfactory record may result in a requirement to withdraw.

**Administrative Board Actions and Letters of Recommendation**

The Administrative Board has adopted the following policy with regard to recommendations for students that are provided on behalf of Harvard College.

1. Resident Deans and those acting on their behalf will answer honestly and fully all questions asked of them on admissions and fellowship applications.
2. Resident Deans and those acting on their behalf will advise students of their responsibility to answer honestly and fully all questions asked on admissions and fellowship applications.
3. Any requirement to withdraw for academic reasons must always be mentioned in all recommendations for students provided on behalf of Harvard College.
4. Any requirement to withdraw or probation for disciplinary reasons must always be mentioned in all recommendations for students provided on behalf of Harvard College.
5. Resident Deans and those acting on their behalf will amend any letters of recommendation provided on behalf of Harvard College to reflect any change in a student's status.
6. Every recommendation mentioning one or more actions taken for disciplinary or academic reasons will state that doing so is mandated by College policy. The letters will place such actions in the context of the student's overall undergraduate experience at Harvard.
7. If a disciplinary matter is pending at the time a letter of recommendation is prepared, the letter will state that a disciplinary matter is pending, and that this is being reported as a matter of College policy.

**Readmission after Requirement to Withdraw for Disciplinary or Academic Reasons**

Students who have been required to withdraw will be readmitted only if they can present convincing evidence that they are likely to achieve good standing with respect to both their academic record and conduct if given a second opportunity to study at Harvard. In all such cases the student must petition the Administrative Board to be readmitted to the College, and the Board's decision will depend on its judgment of the student's readiness to resume studies and to rejoin the College community.

Students required to withdraw should not assume that readmission is automatic. Rather, they must fulfill to the satisfaction of the Administrative Board the Faculty's and the Board's minimum requirements for readmission listed below, and they must also meet any special requirements set by the Administrative Board or Honor Council and described in the letter sent them by the Resident Dean when they were required to withdraw. Examples of such additional, special requirements are (1) a specified level of achievement in a session of the Harvard Summer School, and (2) more than two terms spent away from the College and the Harvard campus. In certain cases, a student may also be requested to consult with Harvard University Health Services prior to return. The Administrative Board will not ordinarily approve the return of a student for the fall term whose experience in the Harvard Summer School in the previous summer has been unsuccessful or unsatisfactory. If students are in any doubt as to the requirements for their readmission following a requirement to withdraw, it is their responsibility to contact the Resident Dean for clarification.

Students request readmission through their Resident Dean, who present the students' petitions to the

Administrative Board. A petition for readmission is not normally considered before December or May prior to the term for which readmission is sought, and the petition must ordinarily be filed at least twelve weeks in advance of the beginning of the term for which the student seeks readmission. **Earlier deadlines for housing and financial aid applications will pertain even though petitions for readmission cannot be considered before December or May.**

Minimum general prerequisites for readmission are:

1. A specified period of time (at the very least, one full term) spent away from Harvard College and University property.
2. Both residence and employment away from the Harvard campus for the period of withdrawal prior to readmission unless other arrangements have been specially approved in advance by the Administrative Board.
3. An acceptable record of performance for a minimum of six months of continuous, regular, full-time paid employment at one non-academic job, with a suitable letter of recommendation from the employer or employment supervisor.
4. A satisfactory standard of conduct during the period since the student was required to withdraw.
5. Indication that the student has an understanding of the reasons for previous difficulties in the College, particularly those related to the requirement to withdraw.
6. Assurance that the student has adequate motivation for resuming academic work and an appropriate program of study in mind.

Note: Students who through their own decision or action of the Administrative Board have been away from College for five or more years must petition the Board for permission to register. Those planning to return to the College after an absence of five or more years will not ordinarily be eligible for scholarship aid from institutional sources. Petitions to return after an interval of five or more years must include evidence of financial resources necessary to meet all College expenses.

## Admission Materials

Occasionally candidates for admission make inaccurate or incomplete statements or submit false materials in connection with their applications. In most cases, these misrepresentations or omissions are discovered during the admission process and the application is rejected. If a misrepresentation or omission is discovered after a student has registered, or registered and completed courses, the offer of admission ordinarily will be rescinded, the course credit and grades will be revoked, and the student will be required to leave the College. If discovery occurs after a degree has been awarded, the offer of admission ordinarily will be rescinded, and the course credit, grades, and degree will be revoked. Such cases may be referred to the Committee on Admissions and Financial Aid rather than to the Administrative Board of Harvard College.

## The Student-Faculty Judicial Board

In 1987, recognizing that there are some issues that the Administrative Board's standard procedures could not address appropriately, the Faculty established the Student-Faculty Judicial Board to hear those disciplinary cases for which there is no clear Faculty legislation or accepted precedent within this community for response. The Judicial Board hears only disciplinary cases and has no authority over administrative petitions or academic review. It uses the same range of sanctions employed by the Administrative Board. Students may get more information about the Judicial Board from the Resident Dean or the Faculty of Arts and Sciences pamphlet, Student-Faculty Judicial Board, available from the Office of the Secretary of the Faculty, University Hall, Ground Floor.

**Members of the Judicial Board**

As with the Administrative Board, the membership of the Judicial Board reflects its mission: since decisions of this Board will become touchstones of community standards, the membership represents the community at large. Thus, the Judicial Board has twelve voting members—six faculty members and

six students—who are chosen by lot according to guidelines ensuring the diversity and distribution of membership. In addition, the Dean of Harvard College and the Administrative Dean of the Graduate School of Arts and Sciences are ex officio nonvoting members.

# The Harvard College Honor Council

Members of the Honor Council

Honor Council Cases

Procedures of the Honor Council

Actions of the Honor Council

Reconsideration and Appeals

Readmission after Requirement to Withdraw for Disciplinary or Academic Reasons

Honor Council Actions and Letters of Recommendation

The Harvard College Honor Council was established by the Faculty of Arts and Sciences in 2014. The Council's authority to handle all undergraduate disciplinary cases involving the Honor Code and rules on Academic Integrity and Academic Dishonesty derive directly from the Faculty. All meetings and discussions of the Honor Council are confidential.

It is the policy of the Faculty that while evaluation of academic work is entirely in the hands of the instructor, questions of academic honesty are adjudicated by the Honor Council. Students have a right to expect that grading will not be used as punishment for alleged academic dishonesty that has not been confirmed by the Honor Council. Students may ask the Council, through their Resident Dean, to investigate and resolve informal allegations of academic dishonesty that have not been brought to the Council's attention by a faculty member.

### Members of the Honor Council

The Honor Council is made up of an equal number of Harvard College undergraduates and FAS Faculty members, administrators, and GSAS teaching fellows. Members are selected to represent the academic community as broadly as possible.

### Honor Council Cases

The Honor Council handles disciplinary cases that stem from a potential violation of the Honor Code or rules on Academic Integrity and Academic Dishonesty. These include potential plagiarism, inappropriate collaboration, exam cheating and copying, and other violations of the Honor Code or rules on Academic Integrity and Academic Dishonesty.

Concerns about violations of the Honor Code or rules on Academic Integrity and Academic Dishonesty may be referred to the Council by any member of the community, including an undergraduate student, member of the Faculty, other officer of the University, staff member, or other community member. A complaint or charge can be made in writing directly to the Honor Council or to the Resident Dean or the Dean of Harvard College. All complaints must be referred to the Honor Council.

If it is determined that a potential disciplinary matter is most appropriately handled by the course, the Council may return the case to the course for Local Sanctions. Please see Actions of the Council for a more complete explanation of Local Sanctions.

Cases involving violation of the Honor Code or rules on Academic Integrity and Academic Dishonesty are ordinarily handled by the Honor Council as quickly as is reasonably possible, given the Council's schedule and the need to investigate matters carefully. (The Council does not meet during the summer.) A disciplinary matter concerning a student on leave of absence will also be handled as quickly as possible, and no student on a leave of absence will be allowed to register until any pending disciplinary matter has been resolved. In the case of alleged serious criminal behavior, the College may place a student involuntarily on a leave of absence. Students are expected to comply with all disciplinary

rules from matriculation until the conferring of the degree. A degree will not be granted to a student who is not in good standing or against whom a disciplinary charge is pending.

**Procedures of the Honor Council**

The Honor Council publishes its procedures to provide members of the Harvard College community with a guide to its work. Those procedures are presented on the Honor Council's website.

**Actions of the Honor Council**

In making a decision, the Council is guided by the educational development of the student and the standards of the academic community as set forth in the Honor Code. It should be noted that students are considered in good standing when they are not on probation and have not been required to withdraw, dismissed, or expelled from the College for either academic or disciplinary reasons. Warnings and admonitions do not affect a student's good standing.

If the Council determines that the Honor Code or rules on Academic Integrity and Academic Dishonesty have been violated, it may take the following actions:

1. *Warn or Admonish*: a reprimand to a student whose behavior violates the rules or standards of conduct of the community. A warning becomes part of the student's official record, but is not considered a formal disciplinary action.

2. *Exclusion from a Course*: a notation of EXLD on the transcript, indicating that the student was not permitted to continue in the course and received no credit. Exclusion from a course is equivalent in all respects to failing it and in and of itself makes the student's record for the term unsatisfactory.

3. *Referral for Local Sanctions*: a referral to the faculty member teaching the course in which the finding of academic dishonesty was made with a recommendation that "local sanctions" (for example: mandatory tutoring, a course warning, an ungraded rework of the assignment in question, a grade penalty, or a failure for the assignment) are appropriate. Such sanctions will be imposed at the discretion of the faculty member in consultation with the Council.

4. *Disciplinary Probation*: a strong warning to a student whose conduct gives serious cause for concern. Probation is a formal disciplinary action of the College and becomes part of the student's official record.

During the period of time (to be specified by the Council) that a student is on probation, any further instance of misconduct will cause the Council or Administrative Board seriously to consider requiring the student to withdraw from the College. Students on probation must be especially conscientious about their behavior and responsibilities. If the offense is related to participation in extracurricular activity, the Council may at its discretion restrict such participation; in cases in which management of time appears to contribute to the problem, the Council may require that the student obtain the Council's permission for participation in each individual activity. The Council may also attach additional requirements to probation.

It is the Council's hope that the structure imposed by probation will help students adjust their conduct so as to meet the standards of the Honor Code and the community. Failure to do so is a grave matter, ordinarily leading to further disciplinary action, including requirement to withdraw. A student placed on disciplinary probation is relieved of probation by petitioning the Council at the end of the probationary period. For the petitioning procedures, please see the Honor Council website.

Students on probation may not receive a degree until they have been relieved of probation by the Council.

5. *Requirement to Withdraw for Disciplinary Reasons*: action taken in serious disciplinary cases indicating that the student's behavior is unacceptable in this community. Requirement to withdraw is a formal disciplinary action of the College and becomes part of the student's official record. Requirement to withdraw ordinarily is effective immediately upon vote of the Honor Council.

For students who have been required to withdraw, the rules regarding financial aid and financial obligations (room rent, board, etc.) are the same as for undergraduates who go on leave of absence (see Students' Financial Obligations). Students who are required to withdraw from the University are not

entitled to an identification card until they have been officially readmitted (see also Harvard University Identification Cards).

A student who is required to withdraw for disciplinary reasons is not in good standing until readmitted, and may not participate in any academic exercises or extracurricular activities. Students may not receive a degree until they have been readmitted to good standing in the College. In order to be readmitted, the student ordinarily must have been away from the College for at least one but ordinarily two or more full terms and must have shown an acceptable record of performance during a substantial period (at least six consecutive months) of regular employment. Employment must be full-time, paid, supervised and evaluated, and not in a business owned or controlled by the student's family. *Without exception, students who have been required to withdraw must petition the Administrative Board to be readmitted to the College, and the Board's decision will depend on its judgment of the student's readiness to rejoin the College community (see also Readmission after Requirement to Withdraw for Disciplinary or Academic Reasons). Students who are petitioning for readmission should consult closely with their Resident Dean, who will bring the student's petition to the Administrative Board.* A student who has twice been required to withdraw from the College will ordinarily not be readmitted. No student who for disciplinary reasons has been required to withdraw for the second and final time or dismissed from Harvard College may ordinarily enroll in the Harvard Summer School or in the Extension School.

6. *Dismissal*: action taken in serious disciplinary cases whereby a student's connection with the University is ended by vote of the Faculty Council. (The action taken by the Honor Council is a vote of requirement to withdraw with a recommendation to the Faculty Council that the student be dismissed.) Dismissal does not necessarily preclude a student's return, but readmission is granted rarely and only by vote of the Faculty Council. A dismissed student is not in good standing until readmitted.

7. *Expulsion*: the most extreme disciplinary action possible. It signifies that the student is no longer welcome in the community. Expulsion must be voted by the Faculty Council. (The action taken by the Honor Council is a vote of requirement to withdraw with a recommendation to the Faculty Council that the student be expelled.) A student who is expelled can never be readmitted and restored to good standing.

**Reconsideration and Appeals**

Students may request that their case be reconsidered provided that new materially relevant information becomes available or there is reasonable evidence of a procedural error. A student has the option to appeal some disciplinary decisions of the Honor Council to the Faculty Council. Information on this process may be obtained from the student's Resident Dean, the Office of Academic Integrity and Student Conduct (University Hall, Ground Floor), or the Secretary of the Faculty (University Hall, First Floor).

**Readmission after Requirement to Withdraw by the Honor Council for Disciplinary Reason**

Without exception, students who have been required to withdraw must petition the Administrative Board to be readmitted to the College, and the Board's decision will depend on its judgment of the student's readiness to rejoin the College community (see also Readmission after Requirement to Withdraw for Disciplinary or Academic Reasons). Students who are petitioning for readmission should consult closely with their Resident Dean, who will bring the student's petition to the Administrative Board.

**Honor Council Actions and Letters of Recommendation**

The Honor Council has adopted the following policy with regard to recommendations for students that are provided on behalf of Harvard College.

1. Resident Deans and those acting on their behalf will answer honestly and fully all questions asked of them on admissions and fellowship applications.
2. Resident Deans and those acting on their behalf will advise students of their responsibility to answer honestly and fully all questions asked on admissions and fellowship applications.
3. Any requirement to withdraw or probation for disciplinary reasons must always be mentioned in all recommendations for students provided on behalf of Harvard College.
4. Resident Deans and those acting on their behalf will amend any letters of recommendation provided on behalf of Harvard College to reflect any change in a student's status.

5. Every recommendation mentioning one or more actions taken for disciplinary reasons will state that doing so is mandated by College policy. The letters will place such actions in the context of the student's overall undergraduate experience at Harvard.
6. If a disciplinary matter is pending at the time a letter of recommendation is prepared, the letter will state that a disciplinary matter is pending, and that this is being reported as a matter of College policy.

# Life in the Harvard Community

Residential Life

Policies Governing Enrollment and Residency in the Houses and Dormitories

Policy Regarding Undergraduate Organizations

Regulations for Independent Student Organizations

# Residential Life

Dean of Students Office
6 Prescott Street
dso.college.harvard.edu
Tel: 617-495-1558; Fax: 617-495-1719
Mon.–Fri., 9 am–5 pm

The Dean of Students Office aims to promote a living-learning community that supports the intellectual and effective growth of Harvard undergraduates. The office also provides housing forms and information about all undergraduate housing, and administers system-wide policies and procedures related to housing.

# On-Campus Housing

**On-Campus Housing: The System and Assignments**

All first-year students are assigned to dormitories by the Dean of Students Office, First Year Experience, during the summer months prior to their enrollment. Ordinarily, they live in one of seventeen dormitories in or near Harvard Yard and take their meals in Annenberg Hall. The dormitories are divided into four areas, or Yards, each headed by a Resident Dean of First-Year Students. These Deans, each with a staff of two senior proctors and several resident proctors, oversee the academic progress and personal welfare of the students in their area.

Each spring, current first-year students are assigned to one of the twelve residential Houses by a random lottery system. The features of the process are publicized well in advance of the lottery's administration by the Dean of Students Office, Housing and Residential Life, 6 Prescott Street.

Resident upperclassmen live in one of the twelve residential Houses. The House System is the product of the vision of Abbott Lawrence Lowell, president of Harvard from 1909 to 1933, and is based on the model of Oxford and Cambridge Colleges. Each House accommodates 360-490 students and has a dining hall, common rooms, and facilities for academic, recreational, and cultural activities. Faculty Deans are responsible for the overall management and wellbeing of the House community. As members of its Senior Common Room, each House also has an Allston Burr Resident Dean, faculty associates, tutors, and affiliates, some of whom reside in the House. Students with questions about the tutors' roles should consult the job descriptions in the House Offices. A program of seminars, social service activities, plays, concerts, lectures, special dinners and parties is sponsored by each House. Houses also field a variety of sports teams that compete in an intramural program. In effect, each House forms a small academic and social community within the larger context of the College and University. A thirteenth entity, the Dudley Community, serves non-resident students, Dudley Co-op students and Visiting Undergraduate Students, and is staffed by an Allston Burr Assistant Dean and tutors. It provides recreational and social opportunities as well as specialized support for off-campus issues.

House affiliation and residence for transfer students are determined by a random lottery prior to the student's arrival.

**Housing Assignments**

The assignment of rooms and roommate groups for first-year students is made by the Dean of Students Office, First Year Experience. Students are notified of these assignments in August. Questions regarding first-year students' room assignment should be directed to the First Year Experience unit in the Dean of Students Office.

Each House determines the procedure for room assignments for the upperclassmen assigned to it. Sophomores beginning residence in a House receive room assignments after rooms are filled by seniors and juniors. Questions regarding room assignments for upperclassmen should be directed to the House Administrator of the appropriate House. A directory of House Administrators can be found here.

Changes in room assignment within a first-year dormitory or within a House must be approved by the appropriate staff. Students must notify their Resident Dean immediately of any change in address.

## Transferring Between Residential Houses

It is assumed that students will live, for their three upperclass years, in the House to which they are assigned during the Rising Sophomore Lottery.

Occasionally, however, students may seek to transfer to another residential House. Students who started the College as first-year students may transfer after completing two terms of residency in the House to which they were assigned. Students who transferred to Harvard College from other institutions may apply to transfer after one term of residency in the House to which they were assigned. Applications are made in the term prior to when the transfer would take place (e.g., students who want to transfer in the fall apply in the spring). See the Academic Calendar for dates. Requests for an inter-House transfer based on medical reasons are evaluated on an individual basis throughout the year. Transfers between Houses for medical reasons are rare and all such petitions must be directed to the Accessible Education Office (AEO).

Students may transfer residence from the House to which they have been assigned only through the regular transfer process or by having a medical petition approved.

## Housing for Students Requiring Accommodation

Accommodations can be made for students with disabilities and/or medical conditions. Students requiring assistance need to communicate directly with the Accessible Education Office (AEO) immediately following admission, or as soon as the need is established. In addition, students bringing medical equipment should inform the AEO to ensure that adequate electrical or other considerations are made. Documentation provided to the Accessible Education Office (AEO) is necessary to request housing accommodations. Specific guidelines for such documentation may be obtained from the AEO website. The University reserves the right to change a pre-existing housing assignment, even temporarily, if a disability-related concern exists.

## Religious Accommodation Requests

Students needing alternate access to the Houses for religious reasons should reach out to the appropriate House Administrator and Building Manager. A directory of House Building Managers can be found here, and a directory of House Administrators can be found on the DSO website.

## Gender Inclusive Housing

Gender inclusive housing is an option that allows students to live in a suite with others regardless of their sex or gender identity. All occupants must voluntarily agree to the arrangements. Any student at the College may request gender inclusive housing, although the process differs for first-year students and students living in the houses.

First-year students who wish to request gender inclusive housing can do so when they fill out the first-year housing application over the summer. For more information, contact the Dean of Students Office (617-495-1574) or the Office of BGLTQ Student Life (617-496-5716).

Sophomores, juniors, and seniors who wish to request gender inclusive housing can do so by speaking with their House Administrator. Fulfillment of requests for gender inclusive housing will take into account the limitations of each House. For more information, students should contact the Housing Office (617-496-2774), their House Administrator, or the Office of BGLTQ Student Life (617-496-5716).

## Veterans, Married, and Family Student Housing

Harvard College does not offer undergraduate housing in the Houses or dorms to married undergraduates and/or undergraduates with families. However, students who are veterans, married, and/or have children may be eligible for Harvard-affiliated housing through Harvard University Housing (HUH) Given the leasing period for HUH housing, students are strongly encouraged to make such a request during the spring term (between March 1 and May 1) if they are requesting housing for the following academic year. Requests and inquiries related to this policy should be directed to the Director of Housing and Residential Operations, and Student Life IT (myteveli@fas.harvard.edu).

## Housing Alternatives

The Dudley Cooperative

Commuters

Students Who Move Off Campus

Visiting Undergraduate Students

Dudley Community

While Harvard College is predominantly residential, some students do not live in College housing. Nonresident students are held to the same standards of conduct required of students living in the Houses and dormitories. They are expected to behave in a mature and responsible manner, and that expectation extends to their academic performance no less than to their social behavior.

**The Dudley Cooperative**

The Dudley Cooperative provides undergraduates with an alternative to the residential houses. Students live in the two Cooperative Houses located on Massachusetts Avenue and Sacramento Street. The Dudley Co-ops are a small community of 32. Members pay a reduced room rent to the University and are responsible for the room rent until the end of the term even if they move out of the Dudley Cooperative. Members also pay a reduced board fee. The selection, preparation, and quality of food are taken very seriously. Vegetarians are easily accommodated. Dinners are prepared communally; breakfasts and lunches are prepared individually. A number of additional chores are divided among Co-op members such as kitchen and living room cleaning and food buying. Each member of a Co-op

spends an average of about six hours per week on these chores. Decisions about the running of the Co-op are made by all of the Co-op members, a practice which helps to foster a supportive and tolerant atmosphere. There are 29 student rooms, two tutor rooms, a large and well-equipped kitchen, and a living room. More information can be obtained from the Dudley Community office.

**Commuters**

Occasionally, Harvard admits to the first-year class a student who is granted nonresident status at the time of admission. These students are advised in their first year by a Resident Dean of First-Year Students and participate in the activities and social programs of the Yard. These students may choose to live on campus as sophomores and will receive a House assignment from the Rising Sophomore Lottery. Those students who continue to live off campus will affiliate with the Dudley Community.

**Students Who Move Off Campus**

All upperclassmen who choose to live off campus after having lived in their assigned residential House for at least one semester may choose affiliation with the Dudley Community. or may remain affiliated with their residential House. Choice of affiliation must be indicated on the Housing Contract Cancellation form. This option has appealed to a number of students, including married students, upperclassmen returning from extended leaves of absence, and students who wish to be part of a fully non-residential community.

All first-year students who complete the fall term must enter the Rising Sophomore Lottery to receive a House assignment before requesting approval to live off campus. Should they decide to live off campus in their sophomore year, and never live in the House they were affiliated with, they will automatically be affiliated with the Dudley Community. Students who elect to live in the Dudley Community are required to affiliate with the Dudley Community.

**Visiting Undergraduate Students**

Those students who are admitted to Harvard as visitors for a term or a year are admitted as nonresidents, although a small number of beds may be available to these students on a yearly basis under the oversight of the Dudley Community.

**Dudley Community**

Students who elect membership in the Dudley Community are eligible for partial or full meal contracts and are included in all social and cultural activities sponsored by the Dudley Community. They are advised and supported by the Dudley Assistant Dean and are advised for purposes of fellowship and professional school application by Dudley Community tutors.

# Policies Governing Enrollment and Residency

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**Policies Governing Residential Life**

**Disciplinary Actions**

Disciplinary actions within the Houses, the Dudley Community, and dormitories under College supervision include admonition, probation, and requirement to leave the premises. In the latter instance, a written warning will describe what the unacceptable behavior is, the fact that the Faculty Dean, Dudley Community Assistant Dean, or First-Year Experience staff has the right to require the student to leave, and what steps must be taken by the student in order to remain in residence. Should the student be unable or unwilling to take the steps to improve the situation and should the student continue to behave in a manner that is detrimental to the well-being of the residential community, the Faculty Dean, Dudley Community Assistant Dean, or First-Year Experience staff, in consultation with the Dean of the College, may then require the student to leave the premises even though the student may continue to be enrolled in the College. A student required to leave a House, the Dudley Co-op or other Dudley-supervised residence, or dormitory for disciplinary reasons will not ordinarily have the opportunity to return to a College residence.

**Roommate Rights and Responsibilities**

Personal issues, such as academic stress, alcohol abuse, depression, and eating disorders, may strain relationships in a living situation. It is both a student’s right and a student’s responsibility to seek help when such issues become disruptive.

Studies on alcohol abuse at colleges and universities show that there are significant secondary effects for roommates and friends of those who drink excessively. Roommates and friends report that sometimes they cannot study or sleep because they are worried when a friend gets so drunk that the friend does not return home until the next morning. Roommates often “baby-sit” for those who cannot make wise choices for themselves or who need actual medical help due to intoxication.

Students' concerns about protecting a roommate’s privacy, in this and other instances, should not keep them from getting support personally or for that other person. If a student is worried about a friend, if this concern affects living habits, the student has the right and responsibility to seek help both personally and for that other person. It may be that the student’s action spares the individual painful consequences now or later.

Sources of help:

- Proctor or Resident Deans of First-Year Students at the Dean of Students Office
- House resident tutor, Dudley Community tutor or Assistant Dean, Allston Burr Resident Dean,

or Faculty Dean
- Center for Wellness, Smith Center, Second Floor, 617-495-9629
- Counseling and Mental Health Services staff, HUHS, Smith Center, Fourth Floor, 617-495-2042
- Office of Sexual Assault Prevention and Response 617-495-9100 (24-hour, confidential hotline)
- College Title IX Coordinators
- Office of Alcohol & Other Drug Services (AODS), 617-496-0133

**Noise**

Every student is responsible for respectful treatment of neighbors, in the community and in the residences. In addition to students being responsible for the maintenance of good order and reasonable quiet in their room, they are also responsible for maintenance of good order and reasonable quiet in the neighborhoods in and around campus. Students shall at all times show proper regard for others. Voices, radios, televisions, stereos, musical instruments, and other audio equipment shall be adjusted so as not to disturb the community.

**Guests**

A Harvard student not regularly assigned to a particular dormitory, Dudley residence, or House may not be lodged in that dormitory, residence, or House for more than a brief stay. The consent of other occupants of the room is always required.

Students who wish to have guests who are not Harvard students for more than two nights must first also obtain permission of the Faculty Dean, Dudley Community Assistant Dean, or First-Year Experience staff. The hosts of repeated overnight guests who are not Harvard students must make their guests' presence known to the Building Manager and security personnel due to safety considerations. The College reserves the right to prohibit overnight guests when issues of security are involved. Food may not be shared with or given to those who are not on a board contract or who have not paid for the meal.

**Guest Meals**

Guest and inter-House rules for each House are determined by the Faculty Dean and the House Committee. Students may invite members of other Houses for any meal at which guests are allowed. If the guest is "on board," there will not be a charge, although an HUID must be shown. Guests not on a meal plan or their hosts may pay the transient rates that are posted at the checkers' desk (cash, BoardPlus and Crimson Cash are accepted for payment).

Food may not be shared with or given to those who are not on a board contract or who have not paid for the meal.

**Smoking**

Smoking, including vaping, is prohibited in all University buildings. Harvard Yard is a tobacco-free space. This includes, without limitation, in all administrative, academic, and residential buildings and athletic facilities. Smoking is also prohibited within 25 feet of any residential building as well as in any residential courtyard or breezeway. Students who violate this policy may be banned from College housing and also may face disciplinary charges. Harvard University Health Services provides education and assistance to students who wish to stop smoking.

**Obscene or Harassing Telephone Calls**

The placement of an obscene or harassing telephone call is a criminal offense, punishable to the full extent of the law in the courts. It is treated as a serious disciplinary issue within the College.

Information from the Harvard Police is available in the Dean of Students Office and the House Offices for anyone receiving such a call.

**Nonpayment of Telephone Bills**

For calls other than Centrex and 911, telephone service may be deactivated for accounts that have payments overdue by sixty days or more. It is not possible for the University to deliver messages to

students whose service has been disconnected. In response to the concerns of parents who may attempt to call a telephone number that has been temporarily disconnected, the University will inform them that the line has been disconnected for nonpayment and advise them to use an alternate means of communication. Life or death emergencies will be referred to the Harvard Police Department. The University does not allow a student to graduate until all indebtedness is satisfied.

**Other Residences**

Because College housing is limited, students may not hold a room in a House, Dudley residence, or dormitory during term time if it is not their main residence for that period.

**Care of Residential Property**

As part of the care of the buildings under College supervision, students must observe the following specific regulations.

1. Residents are responsible for reporting in writing any damages to their suite (beyond normal wear and tear) to their Building Manager within one week following registration. Any unreported damages found in the suite after this time will be assumed to be the responsibility of the current residents of the suite and they will be term billed to pay for the cost of any repairs. Residents are not permitted to paint their rooms or suites. Students will be charged on their term bill for the full cost to repaint a suite to its original color. Depending on the color and type of paint used, the cost can exceed $200 per wall.
2. While decorating their rooms students must be careful not to attach anything to the walls or to other surfaces in a way that causes damage or leaves any marks. Upon request, the Building Manager will provide students with molding hooks, or an adhesive gum (e.g., Hold-it). Students are advised that use of any other methods (tape, tacks, nails, hooks, etc.) will result in a charge on the term bill.
3. The installation of any temporary room partition must conform with the regulations outlined in the Office of Physical Resources student room partition policy and be specifically authorized by the Building Manager. Unauthorized partitions will be removed immediately and the students responsible will be term billed for the cost of removal and any related damage.
4. Students are expected to maintain a reasonable level of cleanliness in their rooms. All students living in rooms containing an ensuite bathroom are responsible for the cleaning of the bathroom. Cleaning information can be found on the Dean of Students Office website, on the door of each ensuite bathroom, as well as with cleaning supplies available from each Building Manager. Rooms will be inspected periodically during the year and at the end of each academic year. Charges will be levied for violations of rules and repair, including damages or other interventions resulting from lack of cleaning; these charges will be added to the occupants' term bill. If in the course of performing inspections, repairs or maintenance in a student suite a staff member comes across a prohibited cooking appliance or other safety hazard, the staff member will report the item to the Building Manager. The Building Manager will provide the student with notice of the violation and re-inspect the room within two weeks' time. If the violation remains in the student room, the Building Manager will remove and dispose of the offending appliance or materials.

**Maintenance and Energy Conservation**

All building maintenance problems should be reported to the Building Manager's office for the House or dormitory. If there is a security guard on duty in the House when the problem occurs, the security guard should be notified. After hours, and if the Building Manager is not available, or in cases of serious emergency, the problem should be reported to the Harvard Control Center at 617-495-5560.

All students are urged to be especially mindful of energy consumption as energy costs are a significant portion of annual room fees. The following simple actions will reduce energy consumption: using computer power management software and turning off computers when not in use; turning off lights and other appliances when last to leave a room; closing windows and storm windows during cold weather; moving furniture away from radiators and adjusting the radiator (most radiators in Houses have adjustable valves that allow control of the level of heat in the room) to a comfortable temperature. Occupants should never turn radiator valves all the way to the "off" position or leave windows open during cold weather, since they may be held responsible if pipes freeze because of these actions.

Rooms in the Houses or dormitories that are overheated or unusually cold should be brought to the attention of the Building Manager so that the necessary alterations can be made by Facilities Maintenance. Space heaters are prohibited without the permission of the Building Manager since they are fire hazards and expensive to operate.

**Recycling**

Recycling is mandatory in Cambridge. Students must bring all trash and recyclables to the designated recycling area in each House, Dudley residence, or dormitory, and should do so regularly throughout the term. Materials should be sorted into trash, mixed paper, commingled container, and battery receptacles. Composting is recommended and encouraged in dormitories.

- Mixed paper includes newspapers, magazines, phone books, white and colored office paper, junk mail with window envelopes, paper with metal staples or spiral bindings, paper with small bits of adhesive tape and flattened cardboard. The mixed paper bag or barrel should not contain food wrappers, tissues, cups, pizza boxes, plastic wrappers, or trash. Please make a dedicated effort to reuse and recycle paper, as paper is a major component of University waste.
- Commingled containers include cans, jars, cardboard beverage containers and bottles made of glass, metal, or plastic. All caps and lids should be discarded, and containers should be emptied and rinsed before they are deposited in the receptacles. Liquids remaining in containers significantly complicate recycling and waste disposal.
- Batteries of any kind, including those for laptops, cordless phones, pagers, radios, Walk-mans, etc. must be recovered for safe disposal. In the Yard, batteries can be left at the battery recycling bin in each trash/recycling room. In the Houses, batteries can be left at the Building Manager's office.

In addition to recycling, students are encouraged to reduce waste by purchasing and printing carefully and reusing paper, mugs, furnishings, and other equipment. Direct benefits of recycling to students include contributing to University financial savings which can be translated into student programs, raising Harvard's standing in national recycling competitions, forming sound habits for the future, and contributing to a cleaner and healthier world.

For questions about recycling and waste reduction please call the University Operations Services Recycling Hotline at 617-495-3042 or refer to the University Operations Services Recycling & Solid Waste Removal website.

**Resource Conservation**

Undergraduates play a key role in University efforts to reduce greenhouse gas emissions and move toward an environmentally sustainable campus. Student cooperation and leadership in areas of energy use reduction, solid waste reduction and recycling has and will continue to help further FAS environmental stewardship goals for Houses, Dudley residences, and dorms.

Undergraduates in residence are urged to integrate resource efficiency and environmental responsibility into their daily life in the Houses and dormitories. Above-mentioned expectations include: recycling all recyclable containers and papers; properly disposing of toxic materials such as batteries; reporting leaks immediately; turning off lights and appliances when not in use; and reducing heat waste in the winter. Other community standards include: using computer power management software; purchasing energy-efficient appliances; taking only as much food as one will eat in the dining hall; and using warm or cold water rather than hot for most laundry loads. Consult the Harvard Green Campus Initiative for further information on campus greening activities.

Questions about recycling may be addressed to the University Operations Recycling Hotline at 617-495-3042.

**Care of Furnishings and Personal Property**

1. Students are responsible for all University furniture provided in their rooms or apartments. If students in the Houses or Dudley residences decide not to use some pieces of furniture, they must store them within the building at the direction of the House Building Manager. All first-year dormitory furniture must remain in suites unless approved by the Accessible Education

Office. Please note that in the renovated Houses, furniture storage outside of the student suite is no longer available. Any unwanted furniture items must remain in the student suite. In the DeWolfe Street buildings, furniture storage is not available. Written instructions about the process will be made available during move-in. Students are also responsible for returning any stored pieces to the room before they vacate it. Failure to do so will result in a moving fee.

2. Students may obtain a bed board (plywood for under mattress) for health or comfort from the House Building Manager or Dorm Crew. The student must sign a form agreeing to be charged the cost of replacing the bed board if it is not returned by the end of the academic year. Bedrails are not provided but bedding/linens for added protection can be purchased online or at retail stores.
3. Waterbeds are prohibited in College buildings.
4. Furnishings for the House, Dudley residence, and dormitory common areas may not be removed for students' personal use. Building Managers will remove such furnishings from student rooms when found. Students will be assessed the cost of removing the articles, and the incident may be brought to the attention of the Administrative Board for appropriate disciplinary action.
5. Students who bring articles of personal property onto the premises of the University do so at their own risk. The University assumes no responsibility and shall not be liable for any articles, including mail or parcels sent to students that are damaged, lost, stolen, or left behind after vacating. The University urges students to leave valuables at home or to obtain appropriate property insurance. The University recommends obtaining private insurance if your belongings are not covered by your family's homeowner's or renter's insurance policy. You may contact the Office of Risk Management for advice regarding insurance options available to Harvard students.
   Retrieval of personal property (jewelry, contact lenses, etc.) from sink, shower, toilet and bathroom drains is the financial responsibility of the student requesting retrieval. The student will be term billed $75 for the cost of the plumber's time necessary to retrieve the object. This charge applies even if the plumber is unable to retrieve the lost item.
6. Students must maintain their personal furnishings in a decent state of repair, and remove them from the suite at the time of vacating. Any furnishings that might cause a fire hazard or injury to the cleaning staff must be removed on request.
7. Students may keep refrigerators in their rooms for personal use if the units meet the following specifications: dimensions not to exceed 36" high x 24" wide x 24" deep; weight not greater than 85 lbs. Building Managers will have a list of some models meeting the guidelines.
8. It is the students' responsibility to supply their own telephone equipment, or to rent such at the time they apply for service. All suites are equipped with jacks that accommodate the modern plug-in (modular) cords. Some first-year dormitories now have centrally located emergency call boxes.
9. Bicycle racks are provided for active use, not for long-term storage. Bicycles left on racks for extended periods of time, or which appear to be unusable may be removed from bike racks. Check with your Building Manager or Quad Bikes for availability of seasonal storage.

**Security and Access**

For the protection of students, their belongings, and University property, doors must be locked at all times. Students are reminded to always lock their doors even if leaving their room for a moment, never prop open doors, never leave their key in the lock or near the door, never allow visitors to "piggyback" with them when entering their residence hall, request that visitors identify themselves prior to opening the door, and never leave notes indicating one's absence. Additional crime prevention tips can be found at the HUPD Website. Students are encouraged to call the HUPD at 617-495-1212if they observe someone acting in a suspicious manner.

Students will be asked to sign a receipt for the coded keys issued for their House or dormitory and, when applicable, their mailbox. Students are responsible for returning these keys, ordinarily in an envelope provided at the time they give up occupancy. Students must request replacements for lost keys from the Building Manager. Each replacement during the term costs $20. A $50 charge is assessed for each key not returned in the manner detailed above when a student vacates a room or suite.

When students lose their keys along with some form of identification, the lock to their suite will ordinarily be changed as soon as it is feasible to do so. An exception will be made in those cases where there is

no possibility that the keys can be retrieved. Students will be charged a fee of $150 for the lock change. For those students residing in DeWolfe apartments, these charges will be assessed by Harvard University Housing.

The University must have access to all student suites and the rooms within them. Therefore, students are forbidden to install locks or any other security device (e.g., slide bolts, drop chains, hook and eyes) to any doors of their suite.

Unauthorized or inappropriate possession of any key or passkey, reproduction of any key or passkey, or interference with locks or other security devices is prohibited and makes a student liable to disciplinary action by the Administrative Board and/or criminal prosecution.

**Health and Safety**

1. In accordance with College fire safety policy, cooking appliances are prohibited in any room or apartment not equipped with kitchen facilities. One exception to this rule is made for the product called Micro-Fridge, which can be purchased from the manufacturer website or rented through Harvard Student Agencies (HSA). >Models 2.3 MF4-7DI, 2.3 MF4-7DIS and 2.3 MF4 – 7DIW are all permitted in student rooms.
2. No student may keep an animal in a building owned or leased by the College with the exception of approved service or assistance animals.
3. Trash must be placed at all times in appropriate containers. Students are required to dispose of their trash according to the particular guidelines established for each residential building by the Building Manager and the Custodial Division.
4. No chemicals, solvents, grease, paint, or toxic or hazardous substances may be disposed of in the sink, toilet, or shower drains. Students must contact the House Building Manager regarding proper disposal of such items.
5. Students are not allowed on the roofs or any roofing surfaces of any building.
6. Students are not allowed on fire escapes except in the case of fire or other emergency.
7. Occupants of rooms must not place objects, including, but not limited to antennae, satellite dishes, or plants on outside walls, window sills, window frames, roofs, fire escapes, or ledges. Decorations are ordinarily not permitted on the outside of buildings. Exceptions require the approval of the respective Faculty Dean, Dudley Community Assistant Dean, or First-Year Experience staff and Building Manager.
8. Students may use electrical devices, such as hairdryers and electric razors, only if they comply with the standards of the National Electrical Code, Underwriters Laboratories, and Massachusetts laws and regulations, and are not cooking appliances, as stated in item 1 above.
    1. Appliances must not be connected to light sockets.
    2. Do not daisy chain or plug multiple outlet strip plugs or surge protectors together.
    3. No spliced cords are allowed.
    4. Extension cords and stereo speaker wiring must be in good condition and of adequate wire gauge.
    5. Extension cords and stereo speaker wiring must not be attached to wall or floor surfaces, run through doorways or partitions, or be covered by rugs.
9. Refrigerators may not be installed in closets or bathrooms or covered with blankets or tablecloths. Cords for refrigerators must comply with item 8 above.
10. The House Building Manager may request inspection by Facilities Maintenance electricians of any electrical device brought to the College. Should Facilities Maintenance declare the device unsafe for any reason, it must be removed immediately from College housing.
11. The installation of air conditioners is forbidden without the written approval of the Accessible Education Office.
12. Students may use equipment for capturing direct broadcast satellite signals only if the installation of these devices does not cause damage to College-owned property and if the installation is performed in accordance with items 5, 6, and 7 above. External antennae, dishes, etc. are prohibited. Students with questions should consult the appropriate Building Manager or the manager of First-Year Dormitories.
13. All halogen floor lamps are prohibited.
14. Service should be called for all pest control issues. Do not use chemicals or sprays.

Students are urged to be thoroughly familiar with Fire Safety Regulations, Instructions, and Procedures

below.

**Fire Safety Regulations, Instructions, and Procedures**

**Fire: 911**
**University Police: 617-495-1212**

**Regulations**

A student who violates any of the fire safety regulations (see Fire Regulations) or the fire emergency procedures below, including those pertaining to the abuse of fire alarm, smoke detector, sprinkler, or fire extinguisher systems, will be subject to disciplinary action, including requirement to withdraw.

**Fire Emergency Procedures**

Any smoke detector in a stairwell or corridor can initiate a general alarm when a predetermined concentration of smoke reaches it. This alarm has the same sound as the alarms initiated manually and is a signal to leave the building. Each room or suite is typically equipped with a 110-volt AC smoke detector. If activated, the alarm sounds in that room only. Additionally, all of the dorms and Houses are equipped with sprinkler systems, which, if activated, produce 18-25 gallons of water per minute. If there is a fire, go to the nearest exit, pull the fire alarm at the pull station, and leave the building.

**If You Find a Fire**

1. Sound the alarm by activating the nearest fire alarm pull station and call the Fire Department at 911 from a safe location. You can also call 617-495-5560, the University Operations Center, who will notify the Fire Department, HUPD, a University fire safety mechanic, the Building Manager, and other key personnel.
2. Alert your neighbors only if you can do so without delaying your exit.
3. Leave the building immediately, close doors behind you as you exit the building and proceed to the designated emergency evacuation meeting location.
4. If you have information on how the fire started or how the alarm was activated, report it to the Fire Department.

Do not try to put out the fire. Use your common sense. Your safety is more important than property.

**If the Alarm Sounds**

Do not delay evacuation or assume that this is a false alarm. Immediately begin to exit the building.

1. Feel the door. If it is hot, do not open it. Stay in your room. Put a towel or blanket (preferably wet) under the door to keep the smoke out. If your telephone works, call the Cambridge Fire Department at 911. Also call the Harvard University Police Department at 617-495-1212 to let them know where you are. Attract attention to yourself. Hang a sheet or something out the window.
2. If the door is not hot, open it slowly. If smoke and heat fill the hall, close the door, stay in your room, and call for help.
3. If you can safely leave your room, take your key and close your door behind you. Exit by the nearest clear exit stairway. Do not use the elevator – it may fail in a fire or be automatically recalled to the ground floor. Failure to leave when an alarm sounds, unless there are safety reasons for not doing so, is a punishable offense.
4. If you encounter smoke on your way out, stay low and crawl if necessary. You are more apt to find breathable air close to the floor. Cover your nose and mouth with a wet towel or wet handkerchief, if possible.
5. So that you may be accounted for, go to the predetermined emergency evacuation meeting location.
6. Do not attempt to reenter the building until the Fire Department gives permission to do so.

**Fire Safety Instructions**

1. Combustible materials are not allowed in hallways or stairwells, including welcome mats outside suite doors.
2. Do not overload wiring. Appliances should be plugged into wall outlets, never connected to

light sockets. Extension cords should be Underwriters Laboratories or National Electric Code approved cords in good condition and of proper rating. Do not splice extension cords; never run them through doorways or partitions, or cover them with rugs.
3. Use fireproof draperies. Limit the number of flammable decorations and keep your room neat and clean. Draperies are not allowed in first-year dormitories.
4. The use of candles and other sources of open flame is prohibited in House, Dudley residence, and dormitory rooms. Any candles found during room inspections will be confiscated. Menorahs may be lit only in House common areas and only with the approval of the Faculty Dean or Dudley Assistant Dean. They must always be attended.
5. It is illegal to use fireplaces, as they can present a safety hazard to all occupants.
6. **Cooking equipment is prohibited**. The City of Cambridge forbids cooking in any room or apartment not equipped with permanent cooking facilities.
7. **Know emergency escape routes: fire doors, window exits, and fire escapes. Never block emergency escape routes or block open or prop open any fire doors. Emergency exit doors within rooms/suites shall not be blocked on either side by furniture or obstructions of any kind.**
8. Student participation in annual fire drills is mandatory.
9. If you have information on the cause of a fire alarm activation, report information to tutors, proctors, Faculty Deans, Dudley Assistant Dean, Resident Deans, or the Fire Department representatives.

For further information, contact the Department of Environmental Health and Safety, 46 Blackstone Street, Cambridge, 617-495-2060, or visit their fire safety website.

**Carbon Monoxide**

Select rooms may be equipped with carbon monoxide detectors. Carbon monoxide (CO) is an invisible, odorless, tasteless and non-irritating gas created when fuels (e.g. gasoline, propane, natural gas, oil, and wood) are burned. Improperly vented appliances used for heating and cooking can be sources of carbon monoxide. The Commonwealth of Massachusetts requires residential buildings with carbon monoxide-generating appliances to be equipped with carbon monoxide detection devices and alarms.

Common symptoms of carbon monoxide poisoning are headaches, runny nose, sore eyes, and are often described as “flu-like symptoms.” Higher-level exposure symptoms may include dizziness, drowsiness, and vomiting. Extreme exposure to carbon monoxide can result in unconsciousness or death.

**Carbon Monoxide Alarm Instructions**

The carbon monoxide alarm will sound four quick “chirps” every few seconds, indicating that carbon monoxide is present.

1. Everyone in the immediate area of the alarm must immediately move to fresh air outdoors. If anyone is experiencing symptoms of carbon monoxide poisoning, call 911 or Harvard University Police Department, 617-495-1212.
2. If there are no symptoms of carbon monoxide poisoning, call the University Operations Center, 617-495-5560, for instructions and assistance. Remain outside until directed by the Police or Fire Department that it is safe to re-enter the building.

**Storage and Vacate Procedures**

1. Bicycles may be stored in the Houses and dormitories only within guidelines established by each appropriate Building Manager. In no case may a bicycle obstruct a corridor, stairway, or path of emergency exit.
2. Motorcycles or scooters are not allowed in any College building.
3. Students who take a leave of absence or are required to withdraw may not store any belongings with the University.
4. Graduating seniors must remove all personal belongings by the date established by the College administration. For seniors graduating in May this will ordinarily mean by 5 pm of the Friday following Commencement. Any belongings left after that time will be disposed of by the University.
5. Students living in the Houses or dormitories who are leaving in the spring and intending to return to residence in the fall may store belongings in designated areas during the summer

on a space available basis.

1. Please Note: Storage is not available in every House, and students should check with the House Building Manager to learn if storage is available in their particular House.*
2. In those Houses where summer storage is available, the amount of storage space varies considerably, as does the number of boxes and/or pieces of furniture that students are permitted to store. Students may not store their belongings in a House other than their own. Students assume the risk for all items stored at the University. Since the University will not be responsible for any loss, theft or damage, students are strongly urged not to store items of significant value, important class notes, etc., or to insure them if they must leave them. Students are not permitted to store items that are banned from use in the Houses and dormitories such as halogen lamps, microwave ovens and any other cooking appliances. Per order of the City of Cambridge Fire Department, no items may be stored in basement hallways, stairwells, or any other emergency egress route. Items left in any of these areas will be disposed of immediately.
3. **No storage is available for students who live within 150 miles of the College.**

6. There will be no access to stored belongings until the Houses officially open in the fall, with the single exception of students attending Harvard Summer School. Stored articles will be held until the Course Registration deadline (except in designated areas that must be cleared by the Course Registration deadline). Stored articles that are not removed by the appropriate date will be considered abandoned. The University will then donate the items to charity, sell them, or use them for House purposes.
7. Students moving out of College housing must remove all personal belongings at the time of departure. Rented refrigerators must be returned to the rental agency before the student leaves. All trash must be removed. The cost of removing excess trash, disposing of abandoned furniture and belongings, and performing extraordinary cleaning of rooms after students' departure will be charged to departing occupants.

* Houses undergoing renewal will provide students with new common room furniture and will create new social spaces in rooms formerly used for storage, and so will no longer be able to offer storage to their residents.

**Vehicle Registration and General Parking Regulations**

Harvard University is very well served by public transportation, allowing access to South Station, Logan International Airport, downtown Cambridge and Boston, and most points of interest. For information on public transportation, walking, bicycling and bike and car share programs visit the CommuterChoice Program website.

Students who bring their vehicles to school are required to register their cars with Parking Services. The University assumes no responsibility for damages to any vehicle or its contents for reason of fire, theft, vandalism, or other cause.

Campus Service Center
Monday through Friday, 8 am–5 pm
8th Floor, Smith Campus Center, 1350 Massachusetts Avenue
Tel: 617-496-7827; Fax: 617-496-8278
Email: parking@harvard.edu
www.transportation.harvard.edu/parking/students-tenants

All vehicles parked on Harvard University property require a valid parking permit. Students who purchase permits are permitted to park only in those areas officially assigned by Parking Services. Students must comply with all University parking regulations. These parking regulations are in effect at all times including nights, weekends, and holidays. All vehicles in violation of University parking regulations are subject to ticketing and/or towing.

On-street Cambridge parking is reserved for city residents with Massachusetts vehicle registrations. For more information on resident stickers, please visit the City of Cambridge website or call 617-349-4700.

Undergraduates living on-campus may purchase a permit to park at the One Western Avenue Garage. Commuter parking is available at the One Western Avenue Garage on a space-available basis.

Applications are available to students during registration in the fall.

**Nonresident Student Driver Statements and Decals**

State law requires Harvard to post the following notice to all students who are not Massachusetts residents:

“IT IS UNLAWFUL FOR A NONRESIDENT STUDENT TO FAIL TO FILE A NONRESIDENT DRIVER STATEMENT WITH THE POLICE DEPARTMENT LOCATED IN THE SAME CITY OR TOWN AS THE SCHOOL OF COLLEGE ATTENDED, IN ACCORDANCE WITH SECTION 3 OF CHAPTER 90 OF THE MASSACHUSETTS GENERAL LAWS. FAILURE TO FILE SUCH STATEMENT IS PUNISHABLE BY A FINE NOT TO EXCEED $200.”

Under Massachusetts law, if out-of-state students bring cars to campus but elect not to register them with the Massachusetts Registry of Motor Vehicles, then they must file a nonresident driver statement with the local police department, whether or not they apply for on-campus parking. Shortly after filing the nonresident driver statement with the Cambridge/Boston [as applicable] Police Department, students will receive a nonresident student driver decal from the University Parking Office. This decal must be prominently displayed in the uppermost center portion of the vehicle’s windshield.

**Harvard Parking Permit Policies**

In order to register for parking, all students requesting parking must provide the following information:

1. A valid Harvard ID, or a driver’s license with proof of University affiliation
2. Proof of residency (e.g., lease or housing agreement with the student’s name and address on it)
3. Vehicle registration, which clearly states the student’s, parent’s, or spouse’s name. If the last name on the registration does not match student’s last name, please be prepared to show documentation stating legal connection with the vehicle (insurance papers stating student’s name and the vehicle plate, etc.)

It is the responsibility of the student operating a motor vehicle at the University to inform Parking Services of any vehicle change or registration change made during the academic year. For the most current information on parking types and rates, please visit the Parking Services student website. All garage occupancy is on a first-come, first-served basis. There are no assigned spaces in the student garages. Priority will be given to students living in Harvard-affiliated housing.

To effect cancellation and receive a credit, a student must return the issued hang tag and access credentials (e.g., transponders) to the Campus Service Center at 8th Floor, Smith Campus Center, 1350 Massachusetts Avenue during regular business hours. Failure to return the hang tag and access credentials will result in accrual of parking fees.

All student yearly parking will be prorated on a monthly basis. Please note that parking hang tags and access credentials are non-transferable.

**Tickets, Penalties, and Appeals**

All vehicles not displaying a valid Harvard University parking permit are subject to ticketing and/or towing without notice and at the owner’s risk and expense.

A student will be held responsible for any violation incidental to the operation of the vehicle, no matter who the driver may be. Citations will be issued for the following parking offenses: safety violations, regulatory violations, or violations of accessible parking accommodations.

Anyone wishing to appeal a parking violation must do so in writing within 21 days of receiving the violation notice. Appeals can be submitted online through the new eBusiness portal or sent directly to the Campus Service Center at the 8th Floor, Smith Campus Center, 1350 Massachusetts Avenue, Cambridge, MA 02138.

Citations can also be paid online through the eBusiness portal or by check made payable to Harvard University within 21 days of violation notice issue; a late charge will be applied to all violations not paid within that period. Unpaid violations will be added to the student’s term bill.

When an unauthorized vehicle is towed, a citation along with a tow fee is accrued. Students whose cars are towed must pick up their claim checks and pay their fines at the Campus Service Center during regular business hours or at the Harvard University Police Department, 1033 Massachusetts Avenue, after hours.

**Accessible Parking**

All parking policy and parking requests based on disability are managed jointly by the University Disability Services (UDS) and Parking Services. Each school has a Local Disability Coordinator, and students with specific needs should first contact the Local Disability Coordinator at their school. Students needing contact information for their school's Local Disability Coordinator should contact UDS at 617-495-1859 (voice) or by email at disabilityservices@harvard.edu. The Local Disability Coordinator will request any medical documentation or other verification of disability or injury that may be necessary prior to the authorization of parking or shuttle services. Students who require accessible parking as a reasonable accommodation will not be required to pay more than the yearly student rate for comparable parking types (taking into account hours of access and the nature of the parking facility), regardless of whether such students are assigned to a lot or garage generally reserved for faculty or staff.

**Visitor Parking**

Visitor permits for select campus lots may be purchased at the Campus Service Center, 8th Floor, Smith Campus Center, 1350 Massachusetts Avenue, Monday through Friday, during regular business hours. Permits may also be purchased via the Online Permit Purchase System. After-hours visitors can pay and park at the Harvard Business School. Please visit the Parking Services visitor website for the most current visitor parking rates. Parking at all visitor lots is issued on a space-available basis.

# Missing Persons Policy

As required under federal law, Harvard College immediately will refer to the Harvard University Police Department any missing persons report involving a student who lives in on-campus housing. If any member of the Harvard community has reason to believe that a student who resides in on-campus housing is missing, the member should **immediately** notify HUPD at 617-495-1212. If HUPD determines that the student has been missing for more than 24 hours, then, within the 24 hours following this determination, the School or HUPD will:

(1) notify an appropriate external law enforcement agency, unless the local law enforcement agency was the entity that made the determination that the student is missing;
(2) contact anyone the student has identified as a missing person contact under the procedures described below; and
(3) notify others at the University, as appropriate, about the student's disappearance. In addition to identifying a general emergency contact person, students residing in on-campus housing have the option to identify confidentially a separate person to be contacted by Harvard in the event that the student is determined to be missing for more than 24 hours.

Students are not required to designate a separate individual for this purpose and if they choose not to do so then Harvard will assume that they have chosen to treat their general emergency contact as their missing person contact. Students who wish to identify a confidential missing person contact should notify the Registrar. A student's confidential missing person contact information will be accessible only by authorized campus officials and by law enforcement in the course of an investigation, and may not be disclosed outside of a missing person investigation. In addition, if it has been determined that a student who is under 18 years of age and not emancipated has been missing for more than 24 hours, then the School or HUPD will contact that student's custodial parent or guardian, in addition to contacting any additional contact person designated by the student. Students are reminded that they must provide the Registrar with emergency contact information and/or confidential missing person contact information if they have not already done so.

# Housing Policies and Deadlines

Housing Policy

Those Who Will Ordinarily Be Housed

Those Who Will Be Housed on a Space-Available Basis Only

Housing Contract

Summer Occupancy of the Houses

Occupancy of the Dorms and Houses between Fall and Spring Terms

**Housing Policy**

All first-year students are required to live on campus. Most upperclassmen also live in College housing; those who choose to live elsewhere must submit the Housing Contract Cancellation form via the Residential Portal. Please be sure to check the Dean of Students Office residential fees webpage for housing cancellation related fees.

All students living in College dormitories and Houses are required to purchase full-board contracts and be familiar with the undergraduate housing license contract. Below is information about applying for and canceling housing:

1. At the beginning of their residence in the College, all students are required to sign a Housing Contract in the student residential portal. This contract remains binding for all the terms a student is in residence, and is cancelled by graduation or by the submission of a Housing Contract Cancellation form. It is renewed by the timely submission of a Returning Student Housing Application.
2. Students who are on a leave of absence or required to withdraw and intend to return to College Houses must notify the Dean of Students Office of their intention to return by completing the Returning Student Housing Application via the Residential Portal by the dates given below. A student who has filed an application to return to residential housing for one term and subsequently decides to return for the following term must submit a new Housing Contract Cancellation Form and a new Returning Student Housing Application via the Residential Portal by the dates below.
3. Students who, while registered, have lived off-campus by choice and wish to return to their previous House of affiliation must submit a Returning Student Housing Application via the Residential Portal to the Dean of Students Office by the dates given below:

| **Deadlines** | **Consequences of Failure to Notify** |
|---|---|
| October 16 - if student is returning for the spring term | Student will be housed on a space-available basis only, and ineligible to apply for an inter-house transfer or enter a housing lottery. |
| February 8 - if student is returning for the fall term | |

4. All students who decide not to live in College housing, whether or not they are currently registered and whether or not they have signed a Housing Contract, must inform the Dean of Students Office of their intent by completing a Housing Contract Cancellation form via the Residential Portal by the dates given below. See Students Who Move Off-campus.

| Deadlines | Cancellation Fee |
|---|---|
| May 18 - if not taking up residence for the Fall Term 2020 | For cancellation fees, please see the Financial Obligations chart and/or the Dean of Students Office residential fees website. |
| November 9 - if not taking up residence for the Spring Term 2021 | |

5. A student may leave the House system and/or the College during the academic year to take a leave of absence or move off-campus. Please refer to the chart Students' Financial Obligations for detailed information about payment in the event of a leave or move off-campus.

**Those Who Will Ordinarily Be Housed**

1. Students currently registered in the College and living in a residential House or first-year dormitory who have signed a Housing Contract by the deadline.
2. Students on a leave of absence who have filed a Returning Student Housing Application.
3. Students currently registered in the College who by choice are living for at least one term off-campus and who wish to return to their House of previous residence. A Returning Student Application must be filed by the appropriate deadlines.

**Those Who Will Be Housed On a Space-Available Basis Only**

Students who submit the Returning Student Housing Application after the appropriate deadline will be placed on their House's Space Available Wait List. Students should consult the House Administrator for space availability.

**Housing Contract**

STUDENT HOUSING LICENSE
HOUSING AND RESIDENTIAL LIFE
DEAN OF STUDENTS OFFICE
HARVARD COLLEGE

Licensee First Name: Licensee Last Name:
HUID #: Class Year:
Dorm: Suite Assignment:

I, the undersigned Licensee, hereby accept from Harvard University a license to occupy, in accordance with and subject to the Harvard College *Handbook for Students*, other established rules and policies of the University, and the conditions set forth on this page, the living Quarters specified above or **any other Quarters to which I may be at any time assigned (the "Quarters"**), to be occupied only by me and such other persons as are from time to time assigned to the Quarters. I understand that this license shall apply for any and all periods during which that I am in residence at Harvard College. For this license, I hereby agree to pay to the University an undergraduate room/student services fee as indicated in the Harvard College *Handbook for Students* for the academic year. And I hereby agree to be bound by and to comply with all such regulations, rules, usages, and conditions.

I shall have no interest or estate in the land, but only a license to occupy the Quarters assigned to me. The right to occupy the Quarters shall automatically terminate upon my ceasing for any reason to be a full-time registered undergraduate student pursuing a course of instruction at Harvard University, in which case the fee shall be prorated in accordance with the University's policy then in effect.

Licensee Signature: Date:

**CONDITIONS**

One-half of the fee shall be due with the first term bill for the fall term and one-half of the fee shall be due with the first term bill for the spring term (unless Licensee uses another University approved payment plan). Licensee will be liable for the fee for an entire academic year, unless the University terminates the license. The University may cancel this license and reassign the Quarters if (before the course registration deadline for upperclass students, before Registration for First-Year Students) for the applicable term Licensee has not started or resumed his or her occupancy of if Licensee has been granted permission to live off-campus, in either of which case there may be a cancellation fee of up to one-quarter of the fee for the term.

**The University reserves the right to terminate this license for any cause it deems reasonable (including without limitation when Licensee's conduct jeopardizes his or her welfare or the welfare of the community), making an appropriate adjustment of the fee. The University may also reassign Licensee to other Quarters at any time**.

The University shall be under no obligation to furnish heat for the Quarters during any academic vacation. If Licensee chooses to occupy and receives permission from the House Office or Dean of Students Office to occupy the Quarters during any such vacation, then any temporary source of heat utilized by Licensee must be first inspected and approved by the University. Licensee shall have no right to occupy the Quarters between the spring and fall terms and no storage for personal property shall be provided in the building(s) in which the Quarters are located.

The University shall not be liable for any inconvenience, loss, or damage caused by insufficiency of heat or irregularity in the supply of electric current, or for the loss or theft of or damage to any property of Licensee or Licensee's visitors, wherever situated. Each occupant of the Quarters is responsible for the care of University property in the Quarters, and the cost of loss or damage will be assessed to Licensee and student(s) judged by University officials to be responsible. All occupants of a suite or room may be held jointly responsible for any loss or damage to the suite or room. Licensee also shares with other residents joint responsibility for the common areas of the suite, floor, entry, residence hall, or other common facilities and may be subject to joint assessment in the event loss or damage to such areas where University officials conclude that individual responsibility cannot be established. A degree will not be granted to Licensee until such assessments are paid in full.

The University reserves the right to enter the Quarters at times it deems reasonable for standards of safety and/or building maintenance. For routine inspections, students will ordinarily be notified in advance by the Building Manager.

The Licensee may not share or otherwise allow use of University identification or Keys to the Quarters with any other person(s). The Quarters may not be "sub-licensed" in any manner.

**Summer Occupancy of the Houses**

Individual students may not reside in the Houses during the summer unless enrolled in programs conducted by the Summer School or another College-affiliated program.

**Occupancy of the Dorms and Houses between Fall and Spring Terms**

Students are expected to leave at the end of the fall term and not return to campus until the Houses and dorms reopen at the start of the spring term. During the first part of this period, from December 20, 2020 through January 4, 2021, Harvard College will be closed. Thereafter, from January 4 through January 15, only students with a recognized and pre-approved need to be on campus will be permitted to return to College housing. All students continuing on for the spring 2021 term may move back to campus on January 15, 2021.

# Financial Obligations

A student's total financial obligation in the event of a leave of absence, requirement to withdraw, or move off-campus, can be determined from the chart below and in Tuition and Fees. In addition to the

cancellation fee, room and board charges are prorated and continue to the day a student leaves College residence. During the academic year, cancellation of room and board charges is contingent upon submitting the proper paperwork to the Dean of Students Office. Students who move off-campus during the academic year must submit the proper paperwork via the online Residential Portal to the Dean of Students Office; however, the complete Student Services fee continues to be assessed. For students who do not fall into one of the above categories (i.e., a leave of absence, requirement to withdraw, or move off-campus) but who are absent from Cambridge for whatever reason, room and board charges continue to be assessed through the end of the term. When a student moves into on-campus housing from off-campus during the academic year, room rent and board charges will be assessed from the day the student takes up residence in the College. Full board charges are prorated to the day that the student moves on campus.

**Housing Cancellation Fees**

Because of student feedback that cancellation fee deadlines were confusing and did not align with other deadlines, we have adjusted our fee schedule starting with the Fall Term 2018.

| **Fall Term 2020** | |
|---|---|
| On or before May 18, 2020 | $0 |
| May 19, 2020 - June 15, 2020 | $200 |
| June 16, 2020 - July 14, 2020 | $300 |
| July 15, 2020 - August 10, 2020 | $400 |
| August 11, 2020 - September 8, 2020 | $500 |
| September 9, 2020 - December 3, 2020 | $69.29/per diem |
| After December 3, 2020 | $5,682.00 |
| | |
| **Spring Term 2021** | |
| On or before November 9, 2020 | $0 |
| November 10, 2020 - November 28, 2020 | $200 |
| November 29, 2020 - December 20, 2020 | $300 |
| December 21, 2020 - January 11, 2021 | $400 |
| January 12, 2021 - February 4, 2021 | $500 |
| February 5, 2021 - April 27, 2021 | $60.77/per diem |
| After April 27, 2021 | $5,682.00 |

(*The per diem charge is calculated based on the number of days from the first day of classes until the day you move out and return your key. Dudley co-op students will continue to pay the $500 cancellation fee until the per-diem rate breaks even with the $500 fee and is approximately 70% of the usual house rate).

We are unable to waive cancellation fees except in the most extraordinary circumstances. Per the *Harvard College Handbook for Students*: "Fees for late housing cancellation, late check-in, late course registration, and change-of-course petitions are waived only when the University is responsible for the difficulty or when the situation involves a serious illness of the student (usually including hospitalization) or a death in the student's immediate family" (https://handbook.fas.harvard.edu/book/late-fees).

Students are encouraged to cancel their housing as soon as possible so that students can be taken off the wait list and so that houses can plan lottery and room assignments accordingly.

# Effect of Health Issues

### Effect of Health Issues on Dormitory or House Residence

Responsibilities of Health and Counseling Services

College Responsibilities

Procedure for Notice and Consultation

As a residential college, Harvard takes seriously its obligation to support the well-being of all its students. This charge involves not only meeting to the greatest degree possible the needs of students whose continued residence may require reasonable accommodations in physical space or other arrangements, but also safeguarding the right of all community members to be free from undue disruption in their academic and residential lives. In a residential college, an individual student's medical illness or behavioral difficulties affect not only the individual, but also may affect others in the community. How these issues may affect a student's enrollment is discussed elsewhere in this Handbook (see Involuntary Leave of Absence). The principles of consultation outlined here are based on the central importance of preserving suitable living arrangements for all residents, while recognizing that each situation is unique, and that fundamental principles, rather than ironclad rules, must govern consultation and decision-making on residential life.

### Responsibilities of Health and Counseling Services

Medical care and medical decision-making are the province of clinicians. Thus, in consultation with patients, clinicians recommend hospitalization, arrange procedures, prescribe medications, conduct psychological evaluations, and recommend and implement ongoing treatment. Harvard University Health Services (HUHS) preserves the rights to privacy and confidentiality of students under its care, communicating with others about students only with those students' knowledge and consent, except as noted elsewhere (see Confidentiality and Consent).

In addition to providing student health and counseling services, HUHS also acts occasionally as consultants to the College, advising College officers about individual students' needs, ordinarily with students' full knowledge and consent. Two situations that routinely call for close coordination and consultation between HUHS and the College involve relief or accommodations for students experiencing difficulties, and leave of absence considerations. A student with a medical illness or exhibiting behavior that affects functioning may need professional evaluation of the condition to determine the appropriateness of temporary or ongoing arrangements, relief or exception to academic requirements, or accommodations, until adequate functioning is restored. In response to a request from a student's Resident Dean or the Accessible Education Office (AEO), HUHS clinicians may evaluate a student's condition and make recommendations to the College. In making such recommendations, HUHS clinicians will not ordinarily disclose information they know independently about a student's medical or mental health condition without the student's consent and, in all cases, will not disclose information about the student that is not relevant to the recommendations.

### College Responsibilities

The College, in consultation with the affected student, determines whether an injured or ill student, or a student exhibiting disruptive behavior, may continue in residence, and whether the student may return to residence after a short or longer-term absence due to accident, illness, or behavioral disturbance. In situations where a student's medical illness or behavioral disturbance raises concerns about the practicality and appropriateness of the student's residence in a dormitory or House, the College values the expert advice of HUHS and AEO in reaching its informed decision on the student's remaining in or returning to the College residence.

Questions about a student's residence (as opposed to enrollment) most often arise after a significant illness or injury that requires short or longer-term follow-up care, but may also be prompted by situations in which a student seriously disrupts others in the residential community, or requires sustained services or monitoring beyond the capacity of a college to provide or beyond the standard of care that can be expected of a college health service. Such situations include—but are not limited to—the following:

- any head injury;

- any injury or illness that affects vision, hearing, speech, memory, balance, physical mobility, or manual dexterity;
- any illness for which treatment includes medications not readily self-administered, or requiring special equipment for self-administration (IVs, for example);
- any physical or mental illness whose behavioral manifestations have significantly affected roommates or others in the community, or pose a threat to the individual or community safety as assessed by HUHS clinicians;
- any condition which requires frequent professional crisis intervention.

In such circumstances, students may not require hospitalization for clinical reasons, but the level of care and accommodation essential to their stabilization may exceed the physical resources or the appropriate staffing responsibilities of a residential college and/or the standard of care that a college health service can be expected to provide.

**Procedure for Notice and Consultation**

In such circumstances, officers of the College will consult with clinicians at HUHS or, if the student has been treated elsewhere, clinicians at other facilities or in private practice, ordinarily with the student's permission. Depending on all of the relevant circumstances, such consultation may be initiated either by appropriate officers of the College or by clinicians at HUHS. Notice by HUHS that a student has been hospitalized or treated in an emergency department of an area hospital may prompt the College to begin a process of consultation, through which it will decide whether and under what circumstances the student may continue in or return to dormitory or House residence (see Confidentiality and Consent). The College may also independently decide that, based on its observations or other information it has about a student, it should initiate the process of consultation with HUHS clinicians, and ascertain whether that student has been hospitalized or treated by an emergency department. Consultation will be focused upon general information regarding concerns raised by the student's condition or behavior and requirements for continued care, in order to facilitate the College's decision about the student's capacity to maintain residence. Neither the student's medical nor mental health record will be available to officers of the College. College officers, who may consult with other affected students and responsible staff (only as necessary and in accordance with respect for the individual student's right to privacy), will then determine whether it is appropriate for the student to continue in or return to residence.

An important consideration in the College's decision whether a student may continue in or return to residence is the impact of the student's presence on the community. The College regards as unreasonable the expectation that roommates, suitemates, friends, or residential staff will take on health-care responsibilities for other students. Therefore, the College will consider unacceptable any return-to-residence plan that requires other students to monitor a student's condition or provide care.

Any student may refuse to allow consultation between their clinician(s) and officers of the College, but a refusal to allow consultation will not prevent the College from meeting its obligation to reach a decision regarding a student's return to or continuation in residence. In some circumstances, the level of care recommended by clinicians may cause the College temporarily to change a student's place of residence or to deny residence, if in the judgment of College officers necessary and recommended care cannot appropriately be provided in a student residential setting or is beyond the capacity and purpose of the College to provide. Since appropriate residential accommodations and follow-up treatment take time to arrange, students who have been hospitalized should expect that consultation between clinicians and officers of the College will need to occur at least twenty-four hours prior to a student's anticipated return to residence. Both clinicians and College officers will make every effort to resolve questions promptly and, in case of disagreement, to discuss issues immediately and openly with the affected student. Ordinarily, consultation will occur between the student's attending clinician and the relevant HUHS clinician coordinating the case and the student's Resident Dean. In the event of disagreement,that HUHS clinician, the Resident Dean, or the student, may ask that the appropriate Chief of Service at HUHS, the Dean of Students, or another senior College official designated by the Dean of Harvard College be involved. While HUHS clinicians and officers of the College will endeavor to respect the wishes of students regarding treatment recommendations and residential arrangements, the final determination about residence in Harvard housing will rest with the Dean of Harvard College.

## Clearance for Return

**Clearance for Return to Residence and/or Continued Enrollment and Participation in Harvard-**

**Related Programs or Activities**

After a hospitalization or emergency room visit by one of its students, Harvard College ordinarily will not permit that student to return to residence or participation in any Harvard-related programs or activities, without making its own assessment of the suitability of the student's return. (See Procedure for Notice and Consultation in Effects of Health Issues on Dormitory or House Residence.)

To better inform that assessment, students are expected to notify Harvard University Health Services (HUHS) of any hospitalization or emergency department visit. HUHS can be notified by phone 24 hours a day and 7 days a week at 617-495-5711.

**Reason for Policy**

An important consideration in the College's decision whether a student may continue in or return to residence is the impact of the student's presence on the community. A student who is injured, ill, or exhibiting disturbing or disruptive behavior may require ongoing care. Serious alcohol- or drug-related problems, in particular, have the potential to disrupt dormitory life and life in the academic community significantly and impair a student's ability to function academically and socially. Harvard College regards as unreasonable the expectation that roommates, suitemates, friends, or residential staff will take on health care responsibilities for other students.

Any student may, of course, refuse to allow consultation between the student's clinician(s) and Harvard College, but such a refusal will not prevent the College from making a decision regarding a student's return to residence or continued enrollment.

# Consultations and Interventions

**Consultations and Interventions for Behavioral Disturbances Due to Alcohol or Drug Abuse or Other Health Issues**

The College's concern for students' well-being encompasses the preservation of a safe environment and the proactive provision of health resources. The College communicates to all students the availability of psychological, psychiatric, and medical resources at Harvard University Health Services (HUHS) for consultation, assessment, education, intervention, and possible ongoing treatment of behavioral disturbances arising from alcohol or drug abuse and other health issues. The College encourages students' voluntary use of these confidential resources, and proctors, tutors, and Resident Deans routinely refer students to them or remind students of their availability.

Occasionally, a student with potentially significant problems in the use of alcohol, use of drugs, or other health issues does not voluntarily seek help to ameliorate them. These problems often become apparent to residential staff, Harvard police, or other University officers in the form of significant disruption of, for example, life in the residential community, disturbance of personal relationships, or threats to the safety of individuals or of property. A student's behavioral problems resulting from substance use or psychological disorder also may recur or persist over time, and thus may pose a significant threat to the student's own health and well-being or the health and well-being of others. The College may initiate disciplinary proceedings in response to the student's conduct. In addition, regardless of whether disciplinary proceedings are initiated, where a student has not voluntarily sought help, the student's Resident Dean may formally refer the student to HUHS for evaluation, ideally in consultation and cooperation with the student.

In the referral the Resident Dean will communicate both to the student and to the clinician the basis of the College's concerns, and will make note of the referral in the student's file. Should the student choose to decline the referral, then the Resident Dean and senior officers of the College will assess on the basis of available information whether it is appropriate for the student to continue in residence or remain enrolled in the College. The Dean of Harvard College may, if he deems it necessary and appropriate, place such a student on an involuntary leave of absence from the College.

Should a student accept the referral, the student will meet with a HUHS clinician, who will assess the student's use of alcohol or other drugs or other health issues, and make recommendations of further services to the student on the basis of that assessment. With the student's knowledge, the clinician will inform the Resident Dean of the fact of the meeting, but will not disclose the substance of the meeting unless the clinician believes that the student's or others' health and well-being are at significant risk, or

unless the student agrees that information be shared.

Either at that time, based on the concerns that led to the referral, or later, should the student's problems persist, the Dean of the College, in consultation with the student's Resident Dean and with HUHS may condition the student's continued residence or enrollment in the College on the student's participation in ongoing counseling or other medical treatment. In this case, the Resident Dean will propose a formal agreement with the student, which will summarize the reasons for the College's concern and the requirement that the College be informed in the event that the student should fail to keep appointments, interrupt counseling against clinical advice, or otherwise undermine the therapeutic process. The student must sign the agreement, and a copy will be given to all members of the student's treatment team. Another copy will be placed in the student's file.

HUHS clinicians will determine the appropriate nature and venue of services for addressing the student's substance abuse or other health issues. These services may include individual counseling or therapy, medical evaluation by a primary care clinician, ongoing groups for students with substances abuse or behavioral disturbances, and/or other services available to students at HUHS. As with other clinical issues, in certain instances HUHS may deem it appropriate to make a referral of the student to an outside clinician or program. In the event that the student receives ongoing services from an outside resource, the student must agree to permit that clinician or program to inform HUHS and the College if the student does not comply with treatment.

Should the student decline to participate in counseling, fail actively to engage in ongoing treatment, or continue to manifest behavioral disturbance, the College will assess whether the student may appropriately remain within the residential community and will reserve the right to terminate the student's residence, or enrollment in the College, if appropriate. In this instance too, the Dean of Harvard College may, if he deems it necessary and appropriate, place such a student on an involuntary leave of absence from the College. A student placed on leave may request to return to the College when clinicians at HUHS are able to conclude, with the student's voluntary cooperation with their assessment, that the student may appropriately resume their participation in the College community.

## Medical Insurance and HUHS

Information on Medical Insurance and HUHS is forthcoming.

## Policy Regarding Undergraduate Student Organizations

**Statement of Policy Regarding Undergraduate Student Organizations**

Independent Student Organizations

Department Sponsored Student Organizations

Recognized Social Organizations

Unrecognized and Non-Harvard Organizations

Funding and Finances

Hazing

The College views a commitment to non-discrimination as essential to its pedagogical objectives and institutional mission. This commitment is reflected in the expectations outlined below for students as members of our College community and members of undergraduate organizations. Discrimination based on race, color, sex, gender identity, sexual orientation, religion, creed, national origin, age, ancestry, veteran status, disability, military service, or any other legally protected basis is contrary to the principles and policies of Harvard University. (See Discrimination and Unrecognized and Non-Harvard Organizations).

Harvard College categorizes student organizations in the following way:

- **Independent Student Organizations (ISOs).** ISOs receive designated benefits from the College, are responsible for meeting filing requirements with the DSO, and are accountable to the College for responsible use of those benefits.
- **Department Sponsored Student Organizations (DSSOs):** DSSOs are led, organized or sponsored by University departments, offices or units and thus do not meet the definition of recognized Independent Student Organizations. DSSOs receive designated benefits afforded to ISOs and file with the DSO to obtain access to those benefits.
- **Recognized Social Organizations (RSOs):** RSOs are organizations comprised primarily of Harvard College undergraduates, whose purpose is primarily social and which do not discriminate on the basis of gender. RSOs work closely with the DSO to be considered for, and to maintain, their recognition.
- **Unrecognized or Non-Harvard Organizations** (such as unrecognized single-gender social organizations and other groups not recognized by the DSO): As these organizations are not recognized, the College does not provide them with access, support, or benefits. Individual students involved in such organizations of course remain subject to the College's policies including the policy with regard to unrecognized single-gender social organizations discussed further below.

For more on these categories and the process by which they are governed, see the DSO website.

**Independent Student Organizations (ISOs)**

Through recognized undergraduate organizations each new class leaves its special mark on the cultural, social, and intellectual life of the College. In granting recognition to Independent Student Organizations (ISOs), the intention of the College is to support students who wish to pursue their various interests and talents in ways that are separate from formal course study. Recognition of an ISO is not an indication that the University approves or endorses the ISO's goals, activities, or points of view.

Provided these ISOs meet and maintain the College's requirements for recognition, the College is willing to provide them with certain benefits and privileges. However, ISOs are independent and distinct from Harvard University. The College's recognition of, and provision of benefits and privileges to, an ISO does not mean that the ISO is a unit of the University or controlled by the University. The University is not responsible for an ISO's contracts or other acts or omissions.

An ISO is defined as a group of Harvard College students who unite to promote or celebrate a common interest. While the membership of an ISO may include students from other Harvard graduate or professional schools, the majority of the members must be Harvard College undergraduates. Faculty, staff, or community members, as appropriate, may participate in ISO activities, but may not hold leadership roles. Only currently enrolled undergraduates at the College are permitted to serve as officers of recognized ISOs.

Recognized ISOs must maintain local autonomy. This means that the ISO must make all policy decisions without obligation to any parent organization, national chapter, or charter, and without direction, interference or pressure from any such entity.

ISOs do not qualify for use of the University's taxpayer identification number or the University's tax-exempt status in connection with purchases or sales by the ISO, gifts directly to the ISO, interest or other income of the ISO, or any other activity of the ISO. The College will consider requests to establish an account controlled by the College to which contributions might be made for the benefit of an ISO.

**Benefits Granted to Independent Student Organizations**

ISOs granted recognition by the DSO may receive many benefits, which include:

- Plan Events and Activities on Campus
    - Ability to reserve College rooms, concert halls, and outdoor spaces for events and activities.
    - Permission to publicize, poster and reserve sandwich boards on campus including posting on the College Calendar.
    - Access to ticketing services provided by the Harvard Box Office.
- Recruit on Campus
    - Participation in the annual student activity fair held in the fall, as well as an

opportunity to enter the lottery for the activity fair held each spring for prospective students.
    - Inclusion in the online directory of student organizations.
    - Ability for students to list their organization affiliation in the Harvard College Yearbook.
- Use the Harvard College Name
    - Permission to use the Harvard College name and trademarks, in accordance with Harvard guidelines.
- Manage Finances and Fundraising
    - Organization banking account at the Harvard University Employees Credit Union.
    - Ability to apply for and receive grants from University sources, such as the President's Public Service Fund, the Office for the Arts, and the Undergraduate Council.
    - Ability to fundraise with specific permission from DSO.
    - Upon demonstration of a useful contribution to the Harvard College community through the activities of the ISO, the College may determine that a gift or endowment account controlled by the College, to which tax-deductible contributions may be made, may be established at the College for the benefit of the ISO.
- Access Services and Support
    - Email and website organization accounts through the Harvard Computer Society.
    - Advising and support services from the DSO.
    - Ability to archive organizational materials in University Archives.
    - Ability to apply for and/or receive a mailbox, or storage space in the Student Organization Center at Hilles.

**Responsibilities of Independent Student Organizations**

Independent Student Organizations are expected to meet the following requirements to remain in good standing with the College:

- Compliance
    - Comply with all local, state, and federal laws and regulations, and with Harvard's policies and requirements, as set forth in the *Harvard College Handbook for Students*, the DSO website, the Student Organization Resurce Guide, and any other written materials from the DSO.
    - Operate in a manner consistent with the goals and standards of the University.
    - Annual Registration with the DSO each spring.
    - File a current constitution and bylaws with the DSO making clear that the ISO does not discriminate on the basis of race, color, sex, gender identity, sexual orientation, religion, creed, national origin, age, ancestry, veteran status, disability, military service, or any other legally protected basis.
    - File non-hazing attestation forms annually with the DSO, take active steps to understand hazing and identify hazing activities, and undertake only team-building activities that do not involve hazing.
    - Submit to the DSO a complete list of officers and members demonstrating that the ISO meets the requirements listed below. Notify the DSO promptly when there are changes in the roster of officers.
        - All officers and a majority of the members must be enrolled undergraduates in good standing with the College. A minimum of ten undergraduate members is required.
        - All other members must be students from other Harvard graduate or professional schools.
    - Attend all required training sessions.
    - Secure appropriate insurance coverage, when applicable, for organizational activities.
- Communication
    - Consult with the DSO when planning any activities for which significant attendance is anticipated (including, for example, outdoor events, conferences, parties, or late-night socials) or when planning any other event that involves unusual or potentially risky activities or elements.

    - Provide timely notification to the DSO of any changes in its constitution and by-laws and submit a copy of the amended documents for approval. Inform the DSO of any other changes within the ISO in a timely fashion.
    - Maintain with the DSO an accurate and complete list of officers and members.
    - Communicate with University offices in a timely manner. When services are needed from University offices, ISOs should assume that at least three weeks' prior notice is required.
- Leadership
    - Manage University resources wisely, ethically, and according to University and College guidelines.
    - Develop and ensure successful officer transitions including good record keeping and new officer orientation.
    - Manage organization's finances responsibly by maintaining accurate financial records, implementing appropriate procedures, and meeting all financial obligations.
- Accurate Representation
    - Clearly and accurately identify the ISO's relationship with the University in print and electronic publications, on websites, and in promotional materials, fundraising, contracts, and other activities. In all dealings with third parties and written materials, the ISO is required to include the appropriate disclaimers.
    - In all written materials, ISOs should describe themselves as: "A student-run organization at Harvard College."
    - In all contracts, ISOs should include the following two provisions: (1) "The parties hereto agree and understand that Harvard University is not a party to this contract and that Harvard University is not responsible, under any circumstances, for performing any obligations of this contract;" and (2) "[Third Party]'s use of the name "Harvard" (alone or as part of another name) in advertising or promotional materials is not permitted."
- Local Autonomy
    - Maintain local autonomy in the governance of the organization. This means that the ISO must make all policy decisions without obligation to any parent organization, national chapter, or charter, and without direction, interference or pressure from any such entity. ISOs that have graduate trusteeships or other advising boards composed of responsible alumni ordinarily will be considered to be in compliance with this rule.
- Advisers
    - Have an adviser who is an employee of the University and preferably one who holds a personal interest or professional expertise that relates to the organization being advised. Consult regularly with the adviser regarding the activities of the organization.

**Department Sponsored Student Organizations**

Some student organizations are led, organized or sponsored by University departments, offices or units and thus do not meet the definition of recognized Independent Student Organizations. These department sponsored student organizations (DSSOs) generally have the following characteristics:

- A University department, office or unit acknowledges the organization as part of its activities and works closely in a supervisory capacity with the organization.
- The mission, purpose, and goals of the organization are aligned with those of the University department, office or unit.
- The organization's events and activities are carried out on behalf of the University department, office or unit.
- The University department, office or unit plays a role in selecting the organization's members.
- The University department, office or unit may provide advising and financial resources to support the organization.
- Funding for the organization's activities is provided directly by the University department, office or unit.
- Unlike recognized ISOs, the organization may not sign contracts on its own behalf; instead, all contracts must be signed by an officer of the University.

**Benefits Granted to Department Sponsored Student Organizations**

- Plan Events and Activities on Campus
    - Ability to reserve College rooms, concert halls, and outdoor spaces for events and activities.
    - Permission to publicize, poster, and reserve sandwich boards on campus including posting on the College Calendar.
    - Access to ticketing services provided by the Harvard Box Office.
- Recruit on Campus
    - Participation in the annual student activity fair held in the fall.
    - Inclusion in the online directory of student organizations.
    - Ability for students to list their organization affiliation in the Harvard College Yearbook.
- Use of the Harvard College Name
    - Permission to use the Harvard College name and trademarks, in accordance with Harvard guidelines.
- Access Services and Support
    - Email and website organization accounts through the Harvard Computer Society
    - Advising and support services through the DSO.
    - Ability to archive organizational materials in the University Archives.
- Use of the University's tax-exempt and non-profit status.

**Responsibilities of Department Sponsored Student Organizations**

In order for the DSO to provide privileges and benefits to DSSOs, the following filing requirements must be met:

- Officer information
- Sponsorship Attestation Form signed by the University office or department
- Non-hazing compliance form
- A current constitution and bylaws that do not discriminate on the basis of race, color, sex, gender identity, sexual orientation, religion, creed, national origin, age, ancestry, veteran status, disability, military service, or any other legally protected basis

**Recognized Social Organizations**

The category of Recognized Social Organization (RSO) is designed to support organizations comprised primarily of Harvard College undergraduates, whose purpose is primarily social and which do not discriminate on the basis of gender. Becoming an RSO is an important milestone marking a group's commitment to becoming an inclusive community aligned with the educational mission and values of Harvard College. Through recognition the College is verifying a social organization's gender-inclusivity and therefore ensuring students (of the Class of 2021 and later) who belong to RSOs have full access to leadership positions and fellowship opportunities at the College.

**RSO Relationship with the College**

RSOs are independent and distinct from Harvard University, as our Independent Student Organizations (ISOs) are. In recognizing an RSO, Harvard College is not adopting its goals, activities, or points of view. Provided that an RSO meets certain requirements, however, the College will verify that an RSO is not an Unrecognized Single-Gender Social Organization for the purposes of the May 2016 social organization policy. In addition, RSOs will be eligible for certain privileges to support their function as positive and inclusive social spaces at Harvard College. The provision of such privileges does not mean a RSO is a unit of the University, or controlled by the University. These privileges are contingent on a RSO’s compliance with all policies outlined for all recognized student organizations. Certain of these policies include that the University is not responsible for an RSO's contracts or other acts or omissions. RSOs, especially those who own or rent space, are therefore encouraged to carry appropriate insurance. RSOs do not qualify for the use of the University’s taxpayer identification number or tax-exempt status in connection with purchases and sales, gifts to the RSO, or any other activity. A full discussion of the applicable policies is set forth in the Recognized Student Organization Resource and Policy Guide.

**Unrecognized and Non-Harvard Organizations**

The regulations for ISOs require that they maintain local autonomy. This means that all policy decisions must be made without obligation to any parent organization. The regulations also require ISOs to comply with the University's policy that discrimination based on race, color, sex, gender identity, sexual orientation, religion, creed, national origin, age, ancestry, veteran status, disability, military service, or any other legally protected basis is contrary to the principles and policies of Harvard University. (See Discrimination) In this way, the independence and integrity of the College are maintained.

From time to time, undergraduates raise questions about their membership in unrecognized or non-Harvard organizations. It is important that students make well-informed decisions when considering membership in these organizations. Organizations defined as non-Harvard or as unrecognized single-gender social organizations are not permitted to conduct any activity at Harvard even though their activities involve Harvard undergraduates.

The College views a commitment to non-discrimination as essential to its pedagogical objectives and institutional mission. It has adopted the following policies with regard to unrecognized-single-gender social organizations:

1. For students matriculating in the fall of 2017 and thereafter: any such students who become members of unrecognized single-gender social organizations will not be eligible to hold leadership positions in recognized student organizations or athletic teams.
2. For students matriculating in the fall of 2017 and thereafter: any such students who become members of unrecognized single-gender social organizations will not be eligible to receive College-Administered fellowships.

For questions related to this policy, please see the DSO website.

However, in special circumstances, unrecognized student organizations whose membership consists entirely of Harvard College undergraduates may, at the discretion of a particular Harvard office or department, be permitted to co-sponsor educational programs organized by that office or department.

**Funding and Finances**

Recognized organizations seek funds from a variety of sources that include membership dues, fee-paying events, advertising, alumni/ae endowments, and friends of the organization. Most of these endowments, foundations, and friends' groups have been established to perpetuate the group and to provide financial subsidy for programs. Endowments are usually administered by alumni/ae groups in consultation with the Dean of Students Office. The College encourages the development of such financial arrangements and, when appropriate, will use University resources to assist with fund drives. Such fund drives must have the prior approval of the Dean of Students Office. A recognized organization must obtain permission through the Dean to solicit support from its alumni/ae.

The earnings of any group may not accrue to individual members. Some organizations pay salaries to members for services performed by those members. Organizations wishing to pay such salaries or other forms of remuneration must first receive approval from the Dean of Students Office. It is expected that salaries will ordinarily conform to current student wage rates in student employment, although special compensation may be given to managers of the groups.

ISOs/RSOs are responsible for their own finances and for keeping their own financial records, and the College expects that they will be managed in a prudent fashion. The Dean of Students Office provides training for financial officers and guidelines for the maintenance of financial records through workshops held each year.

Under the conditions of recognition, ISOs will be required to present annual financial reports to the Dean of Students Office, and an audit of an ISO's finances may also be required.

ISOs/RSOs that are Massachusetts corporations and federally tax exempt are reminded of the requirement to file special financial reports annually with the Secretary of State in the Commonwealth of Massachusetts and with the Internal Revenue Service.

The College makes a considerable contribution to student organization success by providing: student organization resources in the Student Organization Center at Hilles; rooms for meetings and other facilities; resources for music, debate, drama, and dance; in-kind contributions such as professional

advice in fundraising for existing foundations, friends' groups, and new projects; help in ticketing events through the Harvard Box Office; event planning and support; leadership training; mailboxes and mail delivery for student groups; negotiated transportation options; and more. For more information on how the College can help your group, feel free to stop by Hilles Room 110, or email soch@fas.harvard.edu.

**Hazing**

The laws of the Commonwealth of Massachusetts forbid any form of hazing in connection with initiation into a student organization (see Hazing). As a condition of College recognition, all student organizations must file non-hazing attestation forms with the Dean of Students Office. Students should also consult an important guide, *Preventing Hazing at Harvard*, available online at the Dean of Students Office website, that explains the College's policies regarding hazing, how to identify hazing activities, and suggestions for group activities that do not involve hazing. These policies also apply to unrecognized organizations whose membership is made up of Harvard College students. See https://dso.college.harvard.edu/files/dso/files/student_resource_guide_2019.pdf.

# Regulations for Independent Student Organizations

Recognition of Independent Student Organizations

Officers' Responsibility

General Requirements

**Recognition of Independent Student Organizations**

The Committee on Student Life has the authority to grant official recognition to ISOs and has established regulations for their governance as set forth in the *Handbook for Students*, including without limitation under the headings Responsibilities of Independent Student Organizations and Regulations for Independent Student Organizations. ISOs also are expected to abide by the regulations of the Dean of Students Office available online at the DSO website and all policies in the Recognized Student Organization Guide. The College expects ISOs to comply with all applicable regulations. If the Committee on Student Life determines that an ISO has failed to do so, it may revoke the ISO's charter. ISOs must re-register with the Dean of Students Office each year in order to continue their recognition. Should an ISO not meet the registration deadline, fail to turn in any of the registration documents, and/or not reconcile debts with outside vendors, then the ISO will be placed on probation by the Dean of Students Office. During the probationary period, the ISO will be unable to reserve space on campus, advertise for events, use the Harvard name, and/or participate in the visiting program or fall activity fairs.

The official list of ISOs and rules governing their activities are available from the Dean of Students Office.

All officially recognized ISOs have the privilege of using Harvard College's name and its facilities in accordance with the limitations detailed on the Dean of Students Office website. Complete information on the procedures that should be followed to obtain recognition is found online at the DSO website.

Official recognition follows upon recommendation of the Undergraduate Council (UC) Rules Committee to the Committee on Student Life. Student organization proposals are evaluated by the Committee according to the following criteria:

- Compliance with all applicable Harvard policies.
- Demonstrated non-duplication of the mission of previously recognized ISOs and lack of clear similarity with another already-recognized ISO.
- Clearly articulated objectives and goals.
- Feasibility of funding the stated goals, projects, or publications.
- Demonstrated plan for sustainability.
- Local autonomy (whether all policy decisions will be made without obligation to any parent organization, national chapter, or charter).
- At least ten undergraduate members. All officers and a majority of the members must be

enrolled undergraduates of Harvard College.
- Adherence to the University's non-discrimination policy.
- Demonstrated benefit to the members, campus, and/or wider community.
- Demonstrated need for recognition based on benefits provided to recognized ISOs.

To maintain official status, ISOs must register with the Dean of Students Office each spring. Failure to meet these requirements will cause an ISO to be placed on probation and to lose all privileges given to recognized ISOs.

**Officers' Responsibility**

The officers of each ISO are responsible for knowledge of the rules governing independent student organizations and are expected to keep members of their organization informed of all such rules. If there is any doubt about the interpretation or if any ISO wishes an exception made, the Dean of Students Office should be consulted. (Members of ISOs should note that they are of course also subject to all expectations for conduct set forth in the *Handbook for Students*.) Officers of ISOs are reminded of their accountability under the Drugs and Alcohol Policy. Any violation of the rules may lead to the suspension or revocation of an ISO's charter by the Committee on Student Life.

The officers of every ISO are expected to update their information with the Dean of Students Office as needed, depending on the leadership transition of each student organization, in order to assume activities for the academic year in question. As noted above, ISOs that fail to meet the requirements of registration will be placed on probation and/or will lose their recognition status by the College.

**General Requirements**

In addition to the Responsibilities of Independent Student Organizations set forth elsewhere, the following requirements apply to ISOs:

- Only ISOs that have received approval from the Dean of Harvard College may use "Harvard College" in their names. Approval of the name and recognition by the Dean's Office constitutes permission to use that name in notices of meetings and written materials. Any regular publication sponsored by the ISO that uses "Harvard" in its title needs advance permission. Permission to use "Harvard" or "Harvard College" in the name of a group applies to undergraduate ISOs, and not to alumni groups (see also The Use of Harvard University's Trademarks (Names and Insignia) or visit the following website: http://trademark.harvard.edu). Explicit advance permission of the Office of the Dean or Provost is needed before an organization can give permission to a third party to use the Harvard name or to imply connection with the College or University.
- ISOs must not duplicate the mission of previously recognized organizations.
- College policy (see General Regulations and Standards of Conduct) requires that students on probation may not engage in any competition or activity that, in the opinion of the Administrative Board, may interfere with their College work. A student on probation must attend all classes and be especially conscientious about all academic responsibilities. If the offense or unsatisfactory academic record is related to participation in extracurricular activity, the Administrative Board may at its discretion restrict participation; in cases in which management of time appears to be the problem, the Administrative Board may ask the student to obtain the Board's permission for participation in each individual extracurricular activity.
- Students on leaves of absence or requirement to withdraw may not take part in student activities, including student organizations.
- Faculty members may not be voting members or officers of undergraduate ISOs. They are, however, encouraged to serve as advisers, sponsors, or consultants.
- No organization shall be allowed to appear on a commercially sponsored radio or television program.
- No organization shall in any publication, broadcast, public performance, or other venue purport to represent the views or opinions of Harvard University, or its body.
- No organization may act so as to endanger the tax-exempt status of Harvard University.
- No organization may be connected with any advertising medium, including the press or other public forum, that makes use of the name of Harvard (see also The Use of the Harvard Name and Insignia and http://trademark.harvard.edu/.)
- Students and student organizations are expected to respect the privacy of students and

alumni/ae particularly those with FERPA blocks.

## Religion

The ability to express one's views regarding religion is a significant freedom of speech that the College upholds. In some instances, this type of expression becomes an avenue for persuasion to affiliate with a particular religion. Discussion in this vein is prohibited when the educational and work environment of an individual or the community is jeopardized. Harassment is defined as actions on the part of an individual or group which demean or abuse another individual because of religious beliefs or that continue after the affected individual has requested a termination of that type of discussion. In all instances in which a particular religion sponsors an event or discussion, the individual or group initiating such contact must clearly identify its sponsorship or the sectarian religious nature of its agenda.

On occasion, students have expressed concerns about feeling pressure to join a particular religious organization. The Harvard Chaplains, the interfaith association of chaplains at Harvard, are attuned to some of the issues related to religious recruitment through high-pressure tactics and can offer suggestions for intervention and prevention. More information is available in the Harvard Chaplains Office (617-495-5529) located in the basement of the Memorial Church.

## Publications

An organization or group of undergraduates wishing to create a new student publication must file a full description of the proposed publication with the Dean of Students Office, in addition to fulfilling requirements outlined under Recognition of Independent Student Organizations. Sufficient details as to financing, circulation, and authorship must be included in the description to give assurance that it is a Harvard College student enterprise and financially responsible.

## Publicity and Solicitation

### Distribution of Printed Matter

Distribution of printed matter in the Houses, dormitories, Dudley residences, Annenberg Hall, or on Harvard property must be approved by the Dean of Students Office. The Faculty Deans, Dudley Assistant Dean, and the First-Year Experience Office have the right to regulate the time, place, and manner of distribution in their areas. In each of the above cases, permission to distribute printed matter may be granted upon outreach to the respective House or Office. Student groups may also wish to use the distribution services of Harvard Student Agencies. For distribution of materials outdoors, all ISOs must register with the Dean of Students Office.

Should a group of students that is not an independent student organization or department sponsored student organization wish to distribute printed matter on campus, permission to do so may be granted by the Dean of Students Office upon submission of a petition signed by ten enrolled undergraduates. Distribution cannot occur until approval has been made explicit.

### Posters

Posters may be placed only on bulletin boards and kiosks and not on doors, fences, entry posts, gates, poles, waste containers, sidewalks, or other similar places. Organizations violating these rules may be fined up to $200 per daily violation and may lose postering privileges by the College. The defacement of sidewalks or buildings with posters, chalk, or any other material is prohibited.

- Every ISO/RSO in good standing with the College, including official House organizations, has the privilege of posting on University bulletin boards and kiosks.
- "Restricted" bulletin boards (inside classrooms or buildings) are limited to the use of designated departments or organizations. The official representative of the respective department or organization must approve use of these bulletin boards.

- Prior permission of the Dean of Students Office is required for posters larger than 11” x 17”. Posters are removed from bulletin boards and kiosks every Monday and Thursday, staffing and weather permitting.
- Unrecognized student organizations must obtain prior permission of the Dean of Students Office to post on University bulletin boards and kiosks and such permission will be granted only in exceptional cases.
- The bottom right-hand corner of all posters must clearly denote the ISO's/RSO's official name and include details on accessibility. For more information, please visit the Dean of Students Office webpage regarding accessibility considerations.
- It is against City of Cambridge ordinances to affix posters and notices to utility poles.

**Balloons**

Student organizations are prohibited from advertising events by use of balloons in Harvard Yard. In rare circumstances, permission may be granted by the Dean of Students Office.

**Solicitation**

Solicitation in University buildings and on University property must have prior approval of the proper authority. Permission for each of the following activities must be obtained from the indicated office:

- Sales of subscriptions to recognized publications, sales of tickets to functions given by ISOs/RSOs, and sales of recordings of ISOs/RSOs (provided all such sales are conducted in the immediate vicinity of College Dining Halls, Sanders Theatre, or by the Science Center): the Dean of Students Office.
- All other sales: Director of Student Employment and the Dean of Students Office.
- All solicitation and canvassing must be carried out between the hours of 9 am and 9:30 pm on weekdays only. Exceptions may be granted by the Dean of Students Office.
- The First-Year Experience Office, Faculty Deans, or Dudley Assistant Dean may deny permission to carry on the above in their dormitories or Houses or Dudley-affiliated space.
- No student organization activity, including solicitation, can occur prior to the first day of classes.

# Use of Harvard University Trademarks

**The Use of Harvard University’s Trademarks (Names and Insignia)**

The Trademark Program (http://trademark.harvard.edu) is charged with the protection and licensing of Harvard’s trademarks worldwide and the administration of the University’s internal Use-of-Name policies and guidelines. The office also provides advice to members of the Harvard community on a wide range of trademark-related issues.

In its protection efforts, the office registers Harvard’s various trademarks and works to stop their unauthorized use around the world. Through its domestic and international licensing endeavors, the office licenses the University’s trademarks (e.g., Harvard, Harvard University, Harvard College, Harvard Medical School, HBS, Harvard Football, the VERITAS shield, etc.) to qualified companies to produce a variety of insignia items; proceeds from the sales of these items are provided to the Faculty of Arts and Sciences for undergraduate financial aid. The office also administers Harvard’s Use-of-Name policies, which were established by the University to ensure that the Harvard name and insignias are used appropriately and accurately by the University community and in accordance with the principles contained in the policies.

All Harvard student group names incorporating any of the University’s trademarks are owned by the President and Fellows of Harvard College (Harvard University) and are used by permission of the University. In addition, the use of any of Harvard’s shields/logos by student groups is by permission of the University. Also, any use of Harvard’s names/logos by student groups or students must comply with all relevant University policies, including the policy on the Use of Harvard Names and Insignias.

# Development

Any ISO/DSO wishing to raise funds outside the Harvard University campus—whether from an individual, alumni/ae, or from an organization—must receive prior approval from the Dean of Students Office. ISOs/RSOs must also obtain permission of the Dean to solicit support from alumni/ae and may request information on ways to reach alumni/ae for the purpose of development through the Dean of Students Office. Regulations regarding fundraising can be found online at the DSO website.

# Meetings and Events

Complete information regarding policies and procedures for planning student organization events and activities can be found online at the DSO website.

Officers of ISOs, RSOs and DSSOs must receive approval for conferences and other large events from the Dean of Students Office prior to planning such events. In addition, officers of ISOs and RSOs should alert the Dean of Students Office before signing any contracts with vendors, hotels, consultants, or performers. (DSSOs may not sign contracts on their own behalf.)

**Indoor Meetings**

College classrooms, lecture halls, and certain other rooms are available to ISOs, RSOs and DSSOs, with the understanding that:

- Rooms will be kept neat and clean. Food policies for the room will be followed.
- There will be no unnecessary noise or actions that might disturb other occupants or those in surrounding buildings or in the street or office below.
- Room Reservation privileges are non-transferable and may not be reserved on behalf of unrecognized organizations, non-College organizations, or other third-party entities.
- Permission to use on-campus spaces and venues must be provided by the appropriate room scheduler. For a list of venues and how to make a reservation, see the DSO website.

An ISO, RSO or DSSO may not announce its meeting place until it has received official permission in writing for the use of that location. Meetings sponsored jointly with outside organizations are not permitted in University buildings without explicit permission from the Dean of Students Office.

Events open to the public ("open to the public" is defined as open to attendees beyond a particular House community, ISO, RSO or DSSO membership) should be planned with accessibility considerations in mind. Organizers should consider wheelchair accessibility, seating arrangements, audio-visual accessibility, alternative print options, podium access, and sign language availability as they plan events. For more information on accessibility, or to receive help in planning for these accommodations, there are several resources available. Please contact the Dean of Students Office, refer to the DSO website, or seek the assistance of the Accessible Education Office at 617-496-8707 or University Disability Services.

**Outdoor Meetings/Events**

- Outdoor space request forms must be completed and approved by the Dean of Students Office for any outdoor meeting.
- On University property, outdoor meetings may not be held in the immediate vicinity of classrooms during normal class hours, nor may they be held near residence buildings between 9 pm and 9 am.
- The use of private property also requires the permission of the owner.
- Meetings sponsored jointly with outside organizations are not permitted on University property.
- The use of city streets or other public property also requires written authorization from and compliance with regulations of the City of Cambridge.

**Restricted Dates for Events**

Permission will not be given to hold concerts, dramatic performances, debates, meetings, rallies, contests of any kind, etc., during Examination Periods. Late night social events also will not be approved during the weekend of the Head of the Charles Regatta. In addition, restrictions will be placed on events during Reading Periods if they interfere with residential areas and libraries where exam preparation is underway.

**Paid Admissions**

All public events must be registered and approved in advance through the Dean of Students Office through the Event Registration process. In addition, the Event Registration policy may require the presence of a University police officer and/or tutors or proctors, City of Cambridge licenses, and/or an Event Supervisor or Beverage Server through Student Event Services. The Event Registration Policy and appropriate forms can be found online at the DSO website. Questions about this process may be answered in the Dean of Students Office.

**Motion Pictures**

Any student group or organization in the College and the Houses borrowing commercial films must follow all copyright regulations as outlined below.

- If admission is charged, any surplus revenue shall be used to further the educational goals of the sponsoring organization, as outlined in its charter.
- The showing of commercial films in the College and its Houses is subject to the following regulations: (a) advertising must be restricted to the Harvard community; (b) the House Committee, ISO, RSO, or DSSO, or other appropriate committee will ordinarily be responsible for the screening of films and for financial arrangements.
- Organizations showing films must conform to all applicable city and state fire regulations.

**Copyright Regulations**

The Federal Copyright Act makes it unlawful to show a film in public without the explicit permission of the film's copyright owner. Renting or purchasing a DVD at a local video store or elsewhere gives the customer the right to view the film but not to show it in public. The Copyright Act defines "public" in this context as "any place where a substantial number of persons outside of a normal circle of a family and its social acquaintances is gathered."

Several major production and distribution companies—Columbia, MGM, Paramount, Orion, and others—have given notice that arrangements to show their films publicly on university campuses can be made by calling Swank Motion Pictures of St. Louis 314-289-2102. All students who wish to show films under circumstances that are likely to be considered "public" are urged to call this organization to arrange for appropriate permission.

**Public Performances**

General Requirements in Regulations for Independent Student Organizations.

**Dances**

Dances must end by 2 am, per City of Cambridge ordinance. At any public dance, a University Police detail and/or tutors, proctors, or Student Event Services staff must be present. A complete list of guidelines for dances and the required Event Registration form are available in the Dean of Students Office.

**Working with Minors**

Harvard University is committed to providing a safe environment for everyone on its campuses and in its programs. This includes the thousands of minors who participate in programs and activities both on and off campus. Members of the Harvard community who interact with minors in any official capacity are expected to foster and maintain an appropriate and secure environment for minors. The University Policy can be found here: http://youthprotection.harvard.edu/policy. Guidance for ISOs/RSOs to comply with this policy can be found in the Recognized Student Organization Resource Guide.

## Invitations to Distinguished Visitors

In order to facilitate the necessary official courtesies for distinguished visitors, the Dean of Students Office must be notified in advance of any invitation and appropriate clearances obtained. Only then may invitations to visit Harvard as guests of an undergraduate ISO be issued to heads of state or governments, past or present, to cabinet members, and/or to ambassadors of foreign nations. The University Marshal's office, located at Wadsworth House, also must be consulted about plans for distinguished visitors.

## Offices, Lockers, Mailboxes

Harvard College values and supports the presence and contributions of recognized student organizations. The College provides over 50,000 square feet of space in the Student Organization Center at Hilles (SOCH) to facilitate the productive work of Harvard College ISOs and to encourage collaboration among them. The SOCH offers student organization offices, lockers, and mailboxes. ISOs at the College are eligible to apply for SOCH space through an allocation process held each spring semester. All offices and lockers are allocated by the Dean of Students Office with the understanding that:

- Rooms/lockers will be kept neat and clean.
- There will be no unnecessary noise or actions that might disturb other occupants or those in surrounding buildings or in the street, office, or Cambridge neighborhood nearby.
- Organizations will abide by the regulations of the Dean of Students Office as described on the websites of the Dean of Students Office and the SOCH.
- Students with authorized access to individual offices must be registered members of that organization, as well as enrolled students of Harvard College.
- Organizations may not allow other groups or individuals to use the rooms/lockers assigned to them without the written permission of the Dean of Students Office.
- No office/locker keys may be duplicated without the permission of the Dean of Students Office.
- Organizations will not hold the University responsible for property stored in their offices that is stolen or damaged.
- Personal items belonging to individual students will not be stored in office spaces during summer breaks or any time during the academic year.
- Alcohol is not allowed in student organization offices or storage spaces located in the SOCH or first-year dormitories.
- Private parties may not be held in student organization offices.
- Mailboxes are available in the SOCH by request for recognized organizations. Officers of the group will be expected to pick up mail regularly from their assigned box.
- An organization that violates the above regulations may lose its assigned office space/locker /mailbox and/or be subject to disciplinary action by the Student Engagement team of Harvard College.

## Exceptions

The Dean of Students Office may grant exceptions to the rules for ad hoc groups of enrolled students who wish to hold occasional meetings in College rooms. Ad hoc groups of enrolled students may also petition the Office for permission to poster on campus. Groups petitioning must list at least ten enrolled students and include a contact name on the poster.

It will be understood that these ad hoc groups must observe the regulations of the College and the policies of the Faculty in the use of Harvard facilities and, in particular, must be autonomous of outside

organizations. They may not act to endanger the tax-exempt status of the University nor fail to comply with its policies regarding non-discrimination and harassment.

Exceptions to the Regulations may be granted only by petition to the Dean of Students Office.

## Student Activities Fee

The Student Activities Fee of $200 added to all College students' accounts is used to fund student organizations, and support student life activities and operations for all Harvard College students. In order to waive the Student Activities Fee, please write a letter and mail it no later than September 30 for the Fall semester, to:

Harvard University Student Accounts Office
Smith Campus Center 801
1350 Massachusetts Avenue
Cambridge, MA 02138

Include your full name, Harvard ID, and reason for opting out. All requests will be honored. Students charged the Student Activities Fee in the spring semester should contact the Student Accounts Office by February 1 in order to waive the fee.

## Financial Information

Tuition and Fees 2020-2021

Financial Aid

## Tuition and Fees 2020-2021

| | |
|---|---|
| **Tuition** | $49,653 |
| Students granted an Additional Term pay tuition at a per course rate (see Additional Term). | |
| **Student Health Fee**<br>For 2020-2021 there will be two tiers of the health fee depending on where the student is physically located:<br>• Students on campus or residing in Massachusetts will pay the full fee: $603 per term<br>• Students residing outside of Massachusetts (whether elsewhere in the United States or internationally) will receive a 50% discount for the semester(s) they are remote: $301.50 per remote term. | $1,206<br>or<br>$904.50<br>or<br>$603 |
| **Student Health Insurance Plan**<br>**Blue Cross Blue Shield Hospital/Specialty and Express Scripts Prescription Drug Coverage**<br>Students may be eligible to waive one or both parts of HUSHP coverage. Waiver requests must be submitted online by July 31 for the fall term or full academic year and by January 31 for the spring term. For more information, visit hushp.harvard.edu. | $3,922 |

| | |
|---|---|
| **Room Rent** | $11,364 |
| **Student Services Fee** | $3,109 |
| Charged to all students (including students studying out of residence during the term for Harvard degree credit). | |
| **Board** | $7,025 |
| **Student Activities Fee** | $200 |
| A fee charged to all students to fund student life activities and operations, to fund student organizations (see Student Activities Fee). In order to waive the Student Activities Fee, students must write a letter requesting a waiver of the fee and mail it to: University Student Financial Services Office, 801 Smith Campus Center, 1350 Massachusetts Avenue, Cambridge, MA 02138 by September 30th for the Fall semester. For students returning from leave in the Spring semester, the letter requesting a waiver must be received by February 1st of the spring semester. | |

## Late Fees and Fees for Special Petitions

| | |
|---|---|
| **Late Check-In** | $50 |
| **Change of Course (per petition)** | $10 |
| **Late Course Registration (weekly charge until course registration is completed)** | $40 |

## Replacement and Laboratory Fees

| | |
|---|---|
| **Laboratory Fees** | Each student enrolled in a laboratory course is charged for breakage, damage, loss of apparatus, and supplies used. |
| **HUID Card** | each $25 |
| **Room Keys: replacement during term time** | each $20 |
| **Room Keys: not returned at time of departure** | each $50 |
| **Lock Change** | $150 |

## Payment Procedures

Payment Policy

Amount Due

Monthly Payment Plan

Payment Procedures

Late Payment of Term Bills

Information for Degree Candidates

Acceleration

Dishonored Payments

Information for Students Leaving the College

**Payment Policy**

Students are responsible for payment of their charges for tuition and fees. This responsibility includes reviewing your student account on my.harvard upon receipt of an account notification each month and making sure that payments are made by the due dates. Students must ensure that parents and others who make payments on their behalf are able to access the student account. Tuition and fees must be paid in full in order for students to enroll in classes each term. The College may deny enrollment to those students whose charges are not paid by the established deadlines. Payments for Commencement, and the November and March degree periods, must also be made by the designated due dates. No degree can be conferred until all indebtedness to the University is paid in full. Additional charges that may be added to the student account after degrees are conferred must also be paid in full.

**Amount Due**

The amount due includes all charges on your student account on my.harvard that have not been paid, and are not being covered by Anticipated Aid. Email notifications are sent when new charges are added to the account, or when charges are due within the next two weeks. Charges for the fall term are added to the student account in July with a payment due date in mid-August. Spring term charges are added to the account in December and due in January. Upon receipt of the first account notification, students are expected to review the transactions and set up parents and all others (besides sponsors) who need access to the account as delegates. Once set up, delegates will also receive account notifications. More detailed information is available at the University Student Financial Services website or by calling 617-495-2739.

**Monthly Payment Plan**

The University offers a monthly payment plan that allows eligible students to pay tuition and required fees in four monthly installments each term. Under this plan, fall term installments are due in August, September, October, and November. Spring term installments are due in January, February, March, and April. There is a $35 charge per term for use of this plan.

Any balance due from a prior term must be paid in full before students can enroll in the payment plan. Once enrolled, payment plan installments must be paid by the due date each month. Students who do not pay their installments on time may not be permitted to continue to use the payment plan.

You can enroll in the monthly payment plan on my.harvard from your student account. For more information on the payment plan go to the University Student Financial Services website.

**Payment Procedures**

Detailed information about accepted forms of payment can be found at the University Student Financial Services website. All payments must be made in US currency and electronic payments must be drawn from US banks. We encourage you to make an e-payment from your student account whenever possible, as it will be applied to your account immediately. Checks made payable to Harvard University can be delivered or mailed to the Student Accounts Office at 801 Smith Campus Center, 1350

Massachusetts Avenue, Cambridge, MA 02138. To ensure that all payments are properly credited, checks should always reference the student HUID.

**E-payments** - E-payment from the student account is the fastest and preferred way to make a payment. You can make an e-payment from a U.S. checking or savings account by logging into your student account and choosing the Pay Now link below your Amount Due. You will need the account number and bank routing number of your account to make the payment. You can also set up a payment profile to store your account information for future use. In order for parents or others to make e-payments, you must set them up as a delegate here.

**Foreign wire payments** - Harvard University contracts with both Western Union and Flywire to provide international students with a convenient way to pay their student account charges by wire transfer. Each company offers various payment methods, a wide range of international currency options, competitive exchange rates, and the convenience of paying through a local bank. There are no transaction fees from Harvard University's bank, though your bank may charge a fee.

To make an international wire transfer through Western Union, click here.

To make a transfer through Flywire, click here.

**Domestic Wires** - Western Union has been contracted to expedite the processing of student domestic wire transfers directly to Harvard. By using Western Union, Harvard can track your payment more efficiently and make sure it gets posted directly to your account after the University receives it. There are no transaction fees from Harvard University's bank, though your bank may charge a fee.

To make a domestic wire transfer, click here.

**Late Payment of Tuition and Fees**

Charges for tuition and fees must be paid in full by the due dates indicated on the student account. Any student whose indebtedness to the University remains unpaid after the designated payment due dates may be deprived of the privileges of the University. Reinstatement is possible only after all charges have been paid and consent of the Dean is obtained.

Additionally, Students who leave the University with an amount due on their student account and who fail to make acceptable payment arrangements to bring their account current, may be referred to a collection agency. It is further understood that students may be responsible for paying a collection agency fee, which may be based on a percentage at a maximum of 40% percent of their delinquent balance, plus all costs and expenses, including reasonable attorney's fees, necessary for the collection of their delinquent account. Finally, it is understood that their delinquent account may be reported to one or more credit bureaus.

**Information for Degree Candidates**

Students who have applied for graduation must pay any outstanding amount due to the University by the designated due date in order for degrees to be conferred. Additional charges that may be added to the student account after degrees are conferred must also be paid in full.

**Acceleration**

Students who have completed degree requirements in fewer terms than the number required had they worked at an average rate of 16 credits (4 courses per term, 4 credits per course) may petition the Resident Dean for waiver of the residence requirement. (See also Residence Requirement, Rate of Work, and Study Abroad.)

An accelerated degree program has serious and sometimes complex academic implications. Students should have a discussion with their Resident Dean before undertaking such a plan.

**Dishonored Payments**

A $25 fee is assessed for payments returned by Harvard University's bank. A payment is returned

unpaid by the bank due to insufficient funds, no bank account being found, or because it has been stopped by the payer. After the initial return, the University may also require that future payments be made by certified check or money order.

**Information for Students Leaving the College**

Students who leave the College for any reason must pay all due charges on their student account. Students who leave during the academic year are charged tuition and the Student Services fee to the end of the period in which they leave; room rent and board charges are calculated on a daily basis (see Students' Financial Obligations in the Event of a Leave of Absence or Requirement to Withdraw).

The chart does not include any charges for the Harvard University Student Health Insurance Program. Separate policies apply to these fees; additional information regarding changes for Student Health Services fee or Blue Cross Blue Shield insurance can be found at hushp.harvard.edu**.** Room rent charges continue to the day the student leaves College residence. Full-board charges will continue to the day the student submits the proper paperwork to their House office or the Dean of Students Office. The room key must also be returned to the House Office or building manager's office.

The fee schedule also applies to those students who move off-campus during the academic year; however, the complete Student Services Fee continues to be assessed. For those students who do not fall into the category of a leave of absence, requirement to withdraw, or move off-campus but who are absent from Cambridge for whatever reason, room and board charges continue to be assessed through the end of term.

## Students' Financial Obligations in the Event . . .

**Students' Financial Obligations in the Event of a Leave of Absence or Requirement to Withdraw**

| **If Student Leaves (determined by effective date)** | **Tuition** | **S.S. Fee †** | **Board** |
|---|---|---|---|
| **Fall Term 2020**<br>On or before May 16 | -0- | -0- | -0- |
| From May 17 to Sept. 9 | -0- | -0- | pro-rated |
| From Sept. 10 to Oct. 6 | 6,206.63 | 388.63 | pro-rated |
| From Oct. 7 to Nov. 3 | 12,413.25 | 777.25 | pro-rated |
| From Nov. 4 to Dec. 4 | 18,619.88 | 1,165.88 | pro-rated |
| After December 4 | 24,826.50 | 1,554.50 | 3,512.50 |
| | | | |
| **Spring Term 2021** | | | |

| | | | |
|---|---|---|---|
| On or before Mon., Nov. 9 (10th Monday of the term) | -0- | -0- | -0- |
| From Nov. 10 to Jan. 29 | -0- | -0- | pro-rated |
| From Jan. 30 to Mar. 2 | 6,206.63 | 388.63 | pro-rated |
| From Mar. 3 to Mar. 30 | 12,413.25 | 777.25 | pro-rated |
| From Mar. 31 to Apr. 29 | 18,619.88 | 1,165.88 | pro-rated |
| After Apr. 29 | 24,826.50 | 1,554.50 | 3,512.50 |

All amounts are in US dollars. Harvard in its sole discretion reserves the right to change these rates at any time upon 30 days prior notice to students.

* For Dudley Cooperative meal plan charges, inquire in the Dudley Community Office, 10 DeWolfe Street, Suites 22 and 23, (617)495-2256.

† Student Services Fee.

Housing Cancellation Fees

Students cancelling their housing for a future term are subject to cancellation fees if the leave of absence is voluntary. You may find the breakdown of housing fees here (See: Financial Obligations). Please inquire in the Dean of Students Office with questions about charges for a future term.

Because of student feedback that cancellation fee deadlines were confusing and did not align with other deadlines, we have adjusted our fee schedule starting with the Fall 2018 term.

| **Fall Term 2020** | |
|---|---|
| On or before May 18, 2020 | $0 |
| May 19, 2020 - June 15, 2020 | $200 |
| June 16, 2020 - July 14, 2020 | $300 |
| July 15, 2020 - August 10, 2020 | $400 |
| August 11, 2020 - September 8, 2020 | $500 |
| September 9, 2020 - December 3, 2020 | $69.29/per diem |
| After December 3, 2020 | $5,682.00 |
| | |
| **Spring Term 2021** | |
| On or before November 9, 2020 | $0 |
| November 10, 2020 - November 28, 2020 | $200 |
| November 29, 2020 - December 20, 2020 | $300 |
| December 21, 2020 - January 11, 2021 | $400 |

| | |
|---|---|
| January 12, 2021 - February 4, 2021 | $500 |
| February 5, 2021 - April 27, 2021 | $60.77/per diem |
| After April 27, 2021 | $5,682.00 |

(*The per diem charge is calculated based on the number of days from the first day of classes until the day you move out and return your key. Dudley co-op students will continue to pay the $500 cancellation fee until the per-diem rate breaks even with the $500 fee and is approximately 70% of the usual house rate).

We are unable to waive cancellation fees except in the most extraordinary circumstances. Per the *Harvard College Handbook for Students*: "Fees for late housing cancellation, late check-in, late course registration, and change-of-course petitions are waived only when the University is responsible for the difficulty or when the situation involves a serious illness of the student (usually including hospitalization) or a death in the student's immediate family" (https://handbook.fas.harvard.edu/book/late-fees).

Students are encouraged to cancel their housing as soon as possible so that students can be taken off the wait list and so that houses can plan lottery and room assignments accordingly.

# Financial Aid

**Committee on Admissions and Financial Aid**
Mon.–Fri., 9 am–5 pm
86 Brattle Street
Tel: 617-495-1581
https://college.harvard.edu/financial-aid
faoinfo@fas.harvard.edu

The Committee on Admissions and Financial Aid strives to make a Harvard education affordable for all admitted students. Financial aid awards are need-based and consist of grants and employment.

# Conditions Governing Financial Aid Awards

1. Neither the amount of institutional financial aid granted nor the amount lent to any student shall be altered during any given academic year because of changes in the student's academic or disciplinary status, so long as the student is permitted to remain at the College. However, adjustments in the amount of financial aid awarded may be made at any time in response to unanticipated changes in a student's financial circumstances or additional information received about resources or expenses.
2. The nature and amount of financial aid to be awarded for the following academic year will be reviewed each summer, taking into account the financial need and the academic progress of the individual student and the resources available to the Committee on Admissions and Financial Aid.
3. All financial aid awards are based on demonstrated need, and students seeking assistance must file a renewal application each year. Renewal application instructions are emailed to students in February and completed application forms are due May 1. Students must comply with the May 1 deadline in order to be assured of continued financial aid eligibility. The Committee on Financial Aid will not consider applications for assistance after August 1 without an appeal in writing.
4. If an award holder takes a leave of absence or is required to withdraw before completing the period covered by the award, an adjustment of the award will be necessary. That part of the award used to cover educational costs may reduce students' eligibility for scholarship aid in their final term.
5. If an award holder takes a leave of absence after an award has been made, but before completing the check-in process for the academic year, the award will be canceled. Students may apply for an award when they are ready to return to the College. Students returning from a leave should be aware that all loan repayments and/or term bill obligations must be current before any financial aid can be granted.
6. Students returning to the College after an interval of five or more years will ordinarily not be eligible

for scholarship aid from institutional sources. Exceptions because of unusual circumstances will be considered by the Committee on Financial Aid with input from the Administrative Board. Petitions for an exception should be made through the Griffin Financial Aid Office.

7. Awards are available only if the holder is regularly registered in the College as an undergraduate. The Committee will normally reduce the amount of the award if holders choose to live at the home of their parents during the academic year; study abroad for credit at a reduced cost; or are granted permission by the Administrative Board to work and pay at a reduced course rate.
8. Students may normally receive no more than eight terms of financial aid. If a student has taken a leave during a term and used a portion of their financial aid eligibility, they will need to petition the Financial Aid Committee to be considered for full eligibility for their final term.
9. Award holders must notify the Griffin Financial Aid Office of any change in residence during the academic year for which they have an award.
10. Award holders are required to notify the Griffin Financial Aid Office of any substantial change in their financial resources for the year, such as receipt of additional outside scholarship assistance. The Committee reserves the right to review the award in the event of a change in the student's resources.
11. Students who have borrowed from loan funds must report to the Griffin Financial Aid Office for an exit interview prior to graduation or at the time of a leave of absence or requirement to withdraw.

## Basis of Original Award

Scholarships are awarded to students who need financial assistance in order to pursue their course of studies. Awards are based solely on need and the Committee on Financial Aid makes the final determination of family need. Annual awards range from $500 to more than $68,000.

All awards are made annually on the basis of financial need as demonstrated through a variety of forms, including the College Scholarship Service PROFILE and the Free Application for Federal Student Aid (FAFSA). Financial need is determined in accordance with federal guidelines and following the general procedures of the College Scholarship Service and the assessment guidelines established by the Committee on Financial Aid. Detailed information regarding financial aid awards and procedures can be found on the financial aid website.

## Reapplication of Financial Aid after First Year

Students in the College must file an application each year to reapply for financial aid. Renewal aid application materials are described on the financial aid website. The nature and amount of financial aid to be awarded for the following academic year will be reviewed each summer, taking into account the financial need and the academic progress of the individual student and the resources available to the Committee on Admissions and Financial Aid.

Applications for aid are considered carefully every year for changes in financial need, and awards will be adjusted accordingly if the family financial resources increase or decrease. The Committee is ready at all times to consider initial or additional requests for assistance from any student in the College whose family encounters financial hardship.

## Expectations Regarding Other Contributions

**Parental Contribution**

The Committee expects parents to provide as much assistance from both income and assets as is feasible, by determination of institutional need analysis guidelines. The Committee also expects parents to provide assistance for the student during the student's entire undergraduate career. When a student's parents are divorced, both parents are ordinarily required to file financial statements and to provide a portion of the parental contribution. Arbitrary withdrawal of parental support will not ordinarily be met with increased scholarship funds. Students facing irreconcilable differences with their parents should contact the Griffin Financial Aid Office to discuss the College's Independent Student Policy guidelines.

**Parent Loans**

Parents of students in Harvard College have access to various loan plans. Information is available from the Griffin Financial Aid Office website.

**Summer Earnings**

Harvard does not have a summer earnings expectation.

**Students' Own Savings**

In assessing student resources, the Griffin Financial Aid Office will ordinarily ask that a small percentage of students' savings be used to pay for college costs.

**Outside Scholarships**

Students receiving scholarship assistance are required to report to the Griffin Financial Aid Office any outside scholarships they receive through the Outside Award Reporting System (OARS). Notifying another office at Harvard (i.e., the Student Accounts Office) of the receipt of an outside award does not satisfy this requirement. Outside scholarships are first used to replace the job expectation in the financial aid award. If the amount of outside scholarships exceeds the term-time work expectation, then the Harvard Scholarship will be reduced.

## Nonresident, Married, and Out-of-Residence Students

**Nonresident Students**

The charges for nonresident students are Tuition and Student Services and Health Services Fees. Students who receive permission to live off-campus may receive up to the same room, board, and personal expenses as students living on campus. Students desiring to live off-campus may want to consider the fact that actual off-campus costs may be higher than on-campus expenses.

**Married Students**

The College has no scholarship funds with which to provide extra help to married students. It is the policy of the Griffin Financial Aid Office to treat married students as if they are nonresident single students, expecting the student's parents or spouse to provide the necessary extra support. In some extraordinary cases, additional loan and/or job assistance may be available.

**Students Studying Out of Residence**

Students studying at other institutions during the academic year who are receiving credit toward Harvard degrees will ordinarily be eligible for financial aid in accordance with the usual conditions.

## Summer School

Students who are eligible for need-based financial aid from Harvard, and are attending Harvard Summer School, may apply for loan assistance from the Griffin Financial Aid Office. Some limited scholarship funding for summer study abroad is available through the Office of International Education with limited need-based loans coordinated through the Griffin Financial Aid Office.

## Refund Policy

If a student who is receiving any form of financial aid takes a leave of absence or is required to withdraw, the refund of institutional funds will be based on the amount of tuition and fees abated and that amount will be returned to the financial aid fund. A special refund rule applies to these funds: Federal Direct

Student and Parent Loans, Federal Pell Grants, Federal Supplemental Education Grants, and Massachusetts State Grants. These Title IV federal and state funds will be returned to the agencies based on the amount for which the student is no longer eligible. Copies of these refund policies are available upon request from the Griffin Financial Aid Office, (email faoinfo@fas.harvard.edu).

## Federal Verification

Harvard University participates in the US Department of Education's Federal Verification Program which may require additional documentation of certain data elements reported on a student's FAFSA form.

## Statement of Privacy

All information submitted for the purpose of securing financial aid is protected under Harvard's Enterprise Security policy, the Federal Educational Rights and Privacy Act of 1974 (FERPA), and the Gramm-Leach Bliley Act of 2000 (GLB). Under these provisions, Harvard ensures the privacy and safeguarding of all financial aid information. For additional information, please contact the Griffin Financial Aid Office at 617-495-1581.

## Fields of Concentration

**Starting with the 2015-2016 Academic Year, the former terminology of "half-course" and "full-course" now corresponds to "4-credits" and "8-credits," respectively, and "course" refers to a 4-credit entity unless otherwise specified.**


African and African American Studies
Anthropology
Applied Mathematics
Art, Film, and Visual Studies
Astrophysics
Biomedical Engineering
Chemical and Physical Biology
Chemistry
Chemistry and Physics
Classics
Comparative Literature
Computer Science
Earth and Planetary Sciences
East Asian Studies
Economics
Electrical Engineering
History and Science
History of Art and Architecture
Human Developmental and Regenerative Biology
Human Evolutionary Biology
Integrative Biology
Linguistics
Mathematics
Mechanical Engineering
Molecular and Cellular Biology
Music
Near Eastern Languages and Civilizations
Neuroscience
Philosophy
Physics
Psychology
Religion, Comparative Study of


## African and African American Studies

**Professor Suzanne Blier, Director of Undergraduate Studies**

The Department of African and African American Studies brings together scholars and scholarship from many disciplines to explore the histories, societies, and cultures of African and African-descended people. The field of African and African American studies is not only interdisciplinary but also comparative and cross-cultural. Africans and people of African descent have developed cultural forms that have profoundly shaped the fine arts and popular culture in the Americas and all around the planet. Comparative and cross-cultural studies of Africa and its diaspora contribute enormously to our understanding of race and ethnicity, and ideas about race are among the central objects

| | |
|---|---|
| Engineering Sciences | Romance Languages and Literatures |
| English | Slavic Languages and Literatures |
| Environmental Science and Engineering | Social Studies |
| Environmental Science and Public Policy | Sociology |
| Folklore and Mythology | South Asian Studies |
| Germanic Languages and Literatures | Special Concentrations |
| Government | Statistics |
| History | Theater, Dance, & Media |
| History and Literature | Women, Gender, and Sexuality, Study of |

of study in the field of African and African American studies. In addressing the ethical, social, and political consequences of racial thinking, the African and African American studies faculty raise questions relevant to the experiences of all peoples.

The department offers two distinct courses of study: the African track and the African American track. African track concentrators come to the program with a variety of interests (e.g., the environment, public health, music, ethnic relations, religion, politics, economic development, and literature). Components of the African track include study in the African Languages Program, required courses, electives, and the option of study abroad. The department offers seminars and lecture courses on a variety of Africa-related topics. Concentrators in the African track are encouraged to take courses in a variety of departments, including history of art and architecture, music, economics, government, history, anthropology, social studies, Romance languages and literatures, and religion. Courses in the Divinity School, the Graduate School of Education, and Kennedy School of Government may also be available for concentration credit.

The African American track attracts students with an equally wide range of interests. There are many reasons students pursue African American Studies. First, African American music, literature, and visual arts are significant cultural achievements worthy of study in their own right. Second, African Americans have played a crucial role in the history of the United States, participating in the American Revolution, the Civil War, Reconstruction, women's suffrage, and the New Deal; and they led the struggle for equality in the second half of the twentieth century. Third, because American political life remains encumbered by racism and its historical legacy, a proper historical, sociological, and economic understanding of race relations continues to be essential for those who seek to make or evaluate public policy. Fourth, some of the social relations that have developed in countries such as the United States, Cuba, Jamaica, Haiti, and Brazil provide important examples of ethno-racial conflict, and through the study of them it is possible to gain insight into what remains a problem across the globe.

Exploring African and African American cultures requires us to explore aspects of the many other cultures and peoples that have created the mosaic of the modern world. Thus, diaspora studies are integral to each track. In many parts of the Caribbean and Latin America, for example, religions and performance arts are influenced by traditional African belief systems and practices. The cultures of the African Atlantic diaspora have also developed in interaction with other peoples: the many Native American cultures; the Dutch, English, French, German, Irish, Italian, Polish, Portuguese, Russian, Scandinavian, Scottish, Spanish, and other European groups that came with colonists and immigrants; and with the traditions that have come with immigrants from East and South Asia.
Students who graduate with a concentration in African and African American Studies go on to pursue advanced degrees in fields such as history, literature, political science, and sociology. They also go on to work in a wide variety of careers in education, business, medicine, entertainment, law, public policy, and the arts and sciences.

**REQUIREMENTS**
**African Studies Track**
**Basic Requirements: 12 courses (48 credits)**

1. *Required Courses:*
    1. AAAS 11: Introduction to African Studies. Students should take this course by the end of their junior year. (Students who transfer into the concentration after their sophomore year will be permitted to substitute for AAAS 11 a course in African studies they have already taken, but only if they can demonstrate to the Director of Undergraduate Studies that they have established a basic familiarity with the material covered in AAAS 11.)
    2. AAAS 10: Introduction to African American Studies. Students should take this course by the end of their junior year. (Students who transfer into the concentration after their sophomore year will be permitted to substitute for AAAS 10 a course in African and African American studies they have already taken, but only if they can demonstrate to the Director of Undergraduate Studies that they have established a basic familiarity with the materials covered in AAAS 10.)
    3. Two courses of an African language. The language requirement is met by attaining a level of competence equivalent to two courses of African language study. Students who can show evidence at the beginning of their concentration that they have a level of competence equivalent to two courses of African language study will be required to substitute other courses offered in the department. Language courses taken outside of Harvard may be substituted upon approval by the Director of the African Language Program and the Director of Undergraduate Studies.
    4. A course in pre-20th century African history. (Students must select from a pre-approved list of courses available on the Department's website or petition the Director of Undergraduate Studies for a substitution.) A course in African history. (Students must select from a pre-approved list of courses available on the Department's website or petition the Director of Undergraduate Studies for a substitution.)
    5. Five courses in African studies, with at least one in the social sciences and one in the humanities. (These courses need not be given in the department.) In selecting these three courses, students should declare a focus. Some students will declare a disciplinary focus or more general focus in the humanities or social sciences; others will choose an area focus or thematic methodological or comparative focus (e.g., comparative literary or historical analysis, comparative economic and political development). These are not the only possibilities, but students are required to make a coherent case for the course of electives they choose.
2. *Tutorials*:
    1. *Sophomore Tutorial*: AAAS 97: Race, Class, and Colonialism in Africa and the Americas. (Restricted to concentrators and others by permission of instructor.)
    2. *Junior Tutorial*: AAAS 98a, an individual course tutorial that focuses on an African studies topic.
3. *Other information:*
    1. *Pass/Fail*: No course used for the concentration may be taken Pass/Fail, with the exception of AAAS 99.
    2. *Teaching*: Concentrators may be eligible to obtain certification to teach in middle or secondary schools in Massachusetts and states with which Massachusetts has reciprocity. See information about the Undergraduate Teacher Education Program (UTEP).
    3. Students can take AAAS 11 and 97 in succeeding terms starting in their freshman or sophomore year, and then proceed to do individual tutorials in the junior year. Nevertheless, the tutorial program is designed to allow great flexibility; students who declare late may take AAAS 97 concurrently with AAAS 11, for example. Concentrators may be permitted to substitute for AAAS 11, if they declare late.
    4. *Study Abroad*: Students are encouraged to explore the options available for study in Africa, either during the regular academic year or the summer. It is recommended that students study abroad in the spring term of their junior year. In either case they must get approval of their plan of study from the department's Director of Undergraduate Studies.

**Requirements for Honors Eligibility: 12-14 courses (48-56 credits)**

1. *Required courses*: Same as **Basic Requirements**.
2. *Tutorials*:
    1. Same as **Basic Requirements**.
    2. Same as **Basic Requirements**.
    3. *Senior year*: One year of AAAS 99: Senior Thesis Workshop required (see below).
3. *Thesis*: Required for eligibility for High and Highest Honors. A student who has not written a thesis

but has attained a GPA of at least 3.9 in twelve concentration courses may be recommended for Honors (but not High or Highest Honors).
4. *Other information*: Same as **Basic Requirements**.

**Requirements for Joint Concentration: 8 courses (32 credits), including thesis**

1. *Required courses:*
    1. AAAS 11: Introduction to African Studies.
    2. A course in African history. (Students must select from a pre-approved list of courses available on the Department's website or petition the Director of Undergraduate Studies for a substitution.)
    3. Two courses of an African language. Students who intend to conduct thesis research in Africa are encouraged to continue African language instruction beyond the first year.
2. *Tutorials*:
    1. *Sophomore Tutorial*: AAAS 97: Race, Class, and Colonialism in Africa and the Americas. (Restricted to concentrators and others by permission of instructor.)
    2. *Junior Tutorial*: AAAS 98a or junior tutorial equivalent in primary concentration if African and African American Studies is the allied concentration.
    3. *Senior year*: One year of AAAS 99 required, if African and African American Studies is the primary concentration. If African and African American Studies is the allied concentration, the student should register for the thesis tutorial in the primary concentration.
3. *Thesis*: Required. Thesis must be related to both fields. Both departments will participate in evaluating the thesis.
4. *Other information*: Same as **Basic Requirements**.

**Concentration requirements for the Joint Concentration in History and African and African American Studies (African Studies track): 14 courses (56 credits)**

1. Study of an African language (2 courses).
2. AAAS 11
3. *Sophomore Tutorial*: History 97 and AAAS 97
4. AAAS 98
5. One History Research seminar focused on Africa and resulting in a 20-page research paper based on primary sources
6. *Senior thesis tutorial*: History 99 or AAAS 99 (full year)
7. 5 courses in History and AAAS Studies which must include:
    1. One U.S. or European history course
    2. One pre-modern history course
    3. Three courses in African / AAAS history (one must be a modern African history course)
8. *Also note the following information:*
    1. Two types of courses count automatically toward AAAS/History concentration requirements:
        1. Courses listed in the course catalogue's "History" section and historical courses in the catalogue's "AAAS" section, as determined in consultation with the History DUS.
        2. Courses taught in the General Education and/or Freshman Seminar programs by members of the History or AAAS Department Faculty. Students wishing to count such courses toward their concentration requirements should consult the Undergraduate Office, as they may need to file a petition requiring approval by the Director of Undergraduate Studies. Students may also apply to do an independent study, or History 91r, with a member of the Department; History 91r can be used to fulfill one of the elective course requirements.
    2. The joint concentration also regularly accepts credit from Study Abroad toward concentration requirements. With the exception of certain Freshman Seminars taught by History or AAAS faculty (see above), courses taken on Pass/Fail basis may not be counted for concentration credit.

**African American Studies Track**
**Basic Requirements: 12 courses (48 credits)**

1. *Required courses*:
    1. AAAS 10: Introduction to African American Studies. Students should take this course by the end of their junior year. (Students who transfer into the concentration after their sophomore

year will be permitted to substitute for AAAS 10 a course in African and African American studies they have already taken, but only if they can demonstrate to the Director of Undergraduate Studies that they have established a basic familiarity with the materials covered in AAAS 10.)
    2. AAAS 11: Introduction to African Studies. Students should take this course by the end of their junior year. (Students who transfer into the concentration after their sophomore year will be permitted to substitute for AAAS 11 a course in African studies they have already taken, but only if they can demonstrate to the Director of Undergraduate Studies that they have established a basic familiarity with the material covered in AAAS 11.)
    3. A course in 18th or 19th Century African American history that engages substantially the history of slavery. (Students must select from a pre-approved list of courses available on the Department's website or petition the Director of Undergraduate Studies for a substitution.
    4. Seven additional courses in African American or diaspora studies, at least one of which must be in the humanities and one in the social sciences. (These courses need not be given in the department.) Some students will declare a disciplinary focus or a more general focus in humanities or social sciences; others will choose an area of focus in African American or Afro-Caribbean cultures; still others will elect a thematic, methodological, or comparative focus (e.g., comparative ethnic studies, comparative literary analysis, urban studies). These are not the only possibilities, but students should be prepared to make a coherent case for the course of electives they select.
2. *Tutorials*:
    1. *Sophomore Tutorial*: AAAS 97: Race, Class, and Colonialism in Africa and the Americas. (Restricted to concentrators and others by permission of the instructor.)
    2. *Junior Tutorial*: AAAS 98, an individual course tutorial that focuses on an African American studies topic.
3. *Other information*:
    1. *Pass/Fail*: No course used for the concentration may be taken Pass/Fail, with the exception of AAAS 99.
    2. *Teaching*: Concentrators may be eligible to obtain certification to teach in middle or secondary schools in Massachusetts and states with which Massachusetts has reciprocity. See information about the Undergraduate Teacher Education Program (UTEP).
    3. Students can take AAAS 10 and 97 in succeeding terms starting in their freshman or sophomore year, and then proceed to do individual tutorials in the junior year. Nevertheless, the tutorial program is designed to allow great flexibility; students who declare late may take AAAS 97 concurrently with AAAS 10, for example. Concentrators may be permitted to substitute for AAAS 10, if they declare late.

**Requirements for Honors Eligibility: 12-14 courses (48-56 credits)**

1. *Required courses*: Same as **Basic Requirements**.
2. Tutorials:
    1. Same as **Basic Requirements**.
    2. Same as **Basic Requirements**.
    3. *Senior year*: One year of AAAS 99: Senior Thesis Workshop required (see below).
3. *Thesis*: Required for eligibility for High and Highest Honors. A student who has not written a thesis but has attained a GPA of at least 3.9 in twelve concentration courses may be recommended for Honors (but not High or Highest Honors).
4. *Other information*: Same as **Basic Requirements**.

**Requirements for Joint Concentration (Honors only): 8 courses (32 credits), including thesis**

1. *Required courses*:
    1. AAAS 10: Introduction to African American Studies.
    2. A course in 18th or 19th Century African American history that engages substantially the history of slavery. (Students must select from a pre-approved list of courses available on the Department's website or petition the Director of Undergraduate Studies for a substitution.)
    3. Two courses in African American or diaspora studies, one in the humanities and one in the social sciences.
2. *Tutorials*:
    1. *Sophomore Tutorial*: AAAS 97: Race, Class, and Colonialism in Africa and the Americas. (Restricted to concentrators and others by permission of the instructor.)

    2. *Junior Tutorial*: AAAS 98 or junior tutorial equivalent in primary concentration if African and African American Studies is the allied concentration.
    3. *Senior year*: One year of AAAS 99 required, if African and African American Studies is the primary concentration. If African and African American Studies is the allied concentration, the student should register for the thesis tutorial in the primary concentration.
3. *Thesis*: Required. Thesis must be related to both fields. Both departments will participate in evaluating the thesis.
4. *Other information*:
    1. *Pass/Fail*: No course used for the concentration may be taken Pass/Fail, with the exception of AAAS 99.
    2. Students can take AAAS 10, and 97 in succeeding terms starting in their freshman or sophomore year, and then proceed to do individual tutorials in the junior year. Nevertheless, the tutorial program is designed to allow great flexibility: students who declare late may take AAAS 97 concurrently with AAAS 10, for example. Concentrators may be permitted to substitute for AAAS 10, if they declare late.

**Concentration requirements for the Joint Concentration in History and African and African American Studies (African American Studies track): 14 courses (56 credits)**

1. AAAS 10 (Introduction to African American Studies);
2. Two courses in African American Studies— one in humanities, one in social sciences
3. One course in African American History pre-20th century (if not available consult DUS)
4. Sophomore tutorials: History 97 and AAAS 97
5. One History Research Seminar (ideally focused on African American History) and resulting in a research paper of at least 20 pages based on primary sources
6. AAAS 98
7. Senior thesis tutorial: History 99 or AAAS 99 (full year)
8. 4 courses in History and AAAS Studies. These must include:
    1. One pre-modern History course
    2. Three African/AAAS history courses, of which one must be a modern African history course
9. *Please also note the following information:*
    1. Two types of courses count automatically toward AAAS/History concentration requirements:
        1. Courses listed in the course catalogue's "History" section and historical courses in the catalogue's "AAAS" section, as determined in consultation with the History DUS.
        2. Courses taught in the General Education and/or Freshman Seminar programs by members of the History or AAAS Department Faculty. Students wishing to count such courses toward their concentration requirements should consult the Undergraduate Office, as they may need to file a petition requiring approval by the Director of Undergraduate Studies. Students may also apply to do an independent study, or History 91r, with a member of the Department; History 91r can be used to fulfill one of the elective course requirements.
    2. The joint concentration also regularly accepts credit from Study Abroad toward concentration requirements. With the exception of certain Freshman Seminars taught by History or AAAS faculty (see above), courses taken on Pass/Fail basis may not be counted for concentration credit.

**ADVISING**

Beginning in the sophomore year, concentrators will work directly with their individual advisers and with the Director of Undergraduate Studies to create a plan of study that meets their academic interests. The department requires that students develop a focus as part of their declaration of the concentration. This plan of study will take cognizance of disciplinary requirements and the option of study abroad, yet it will be flexible enough to accommodate students in pursuit of their own specific intellectual interests. At the end of the sophomore year, students are asked to submit a 1-2 page Concentration Focus Statement describing the main area(s) of study they wish to explore. The Director of Undergraduate Studies will meet with students, if they request, in order to assist them in the formulation of the statement of concentration focus.

For up-to-date information on advising in African and African American Studies, please see the Advising Programs Office website.

**RESOURCES**

The Franklin D. and Wendy F. Raines Library, in the Department of African and African American Studies, is located on the second floor of the Barker Center and contains a non-circulating collection of important books, academic and popular periodicals, and offprints, as well as an extensive audio and video collection. Past undergraduate theses are also available. An important resource for African Studies concentrators is the Committee on African Studies, which offers summer travel grants to assist Harvard juniors with senior honors thesis research. Please see their website for more information. They can also guide you to resources in teaching, research, and advisory work on Africa in a number of departments, centers, and institutes at Harvard. Harvard's Office of International Education has approved study abroad in eleven African countries. To plan their term in Africa students should meet with the Director of the Office of International Programs.

**HOW TO FIND OUT MORE**
Students should consult the departmental website, which includes information about concentration rules, the senior thesis, model programs, faculty interests, and departmental resources. Additional information is available from the Director of Undergraduate Studies Suzanne Blier (blier@fas.harvard.edu) or Faton Limani the Graduate and Undergraduate Studies Coordinator at faton_limani@fas.harvard.edu /617-384-7767. The department is located on the second floor of the Barker Center, 12 Quincy Street.

**ENROLLMENT STATISTICS**
**Number of Concentrators as of December**

| Concentrators | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| African and African American Studies | 21 | 19 | 11 | 13 | 15 | 11 | 9 | 11 | 6 | 6 | 4 | 7 |
| African and African American Studies + another field | 3 | 1 | 6 | 3 | 6 | 7 | 4 | 0 | 2 | 2 | 4 | 5 |
| Another field + African and African American Studies | 8 | 5 | 6 | 8 | 10 | 15 | 14 | 10 | 11 | 12 | 20 | 30 |

# Anthropology

**Prof. Jason Ur, Director of Undergraduate Studies (DUS)**
**Dr. Zoe Eddy, Assistant Director of Undergraduate Studies (ADUS)**
**Ligia Alfonzo, Undergraduate Program Coordinator (UPC)**

Anthropology brings global, comparative, and holistic views to the study of the human condition, exploring the enormous range of similarities and differences across time and space. It includes the study of how human behavior has evolved as well as how language, culture, and society have shaped and continue to shape the human experience.

The concentration in Anthropology aims to cultivate a critical understanding of this wide-ranging experience. To study the human condition is to confront the familiarity of the seemingly strange, and to interrogate the strangeness of that which seems familiar. What does this mean? At the very least, it means stepping back and seeing ourselves the way others might see us – a shift in perspective that is foundational to human empathy and humility. Anthropology also invites deeper analysis of behaviors that we might think we fully understand but that have histories and complexities that only reveal themselves to careful investigation. This is why we do long term field research in local languages to understand social life in all its richness and depth. And finally, making the familiar strange demands an ethical and political accounting. It means not accepting the world as given. This might well be the heart of the discipline, its moral optimism: the conviction that things can be different and better -- and that knowledge about the world should be oriented towards greater empathy, solidarity, and equality. Through an insistence on the importance of context, anthropologists wrestle with the totality of intersections between

human practices and behaviors, beliefs, culture, place, politics, identities, and more. Some develop this awareness of cultural and social context into an engaged participation in the contemporary world through politics, work in the public sector, global health policy, journalism, cultural heritage work, the law, advertising or business. For others the study of anthropology provides a foundation for graduate studies in anthropology or related fields.

At Harvard the Anthropology Department is divided into two programs: Archaeology and Social Anthropology.

Archaeology investigates the past human condition primarily through the identification, recovery, and analysis of the material remains of ancient peoples in the field and in the laboratory. Goals of archaeology include understanding such developments as the origins of modern humans, the beginnings and spread of agriculture, and the rise and elaboration of complex societies as well as the roles that archaeologically documented pasts play in the modern world.

Social Anthropology examines the social and cultural diversity of contemporary human experience, practice, and knowledge. Based on various research methods including ethnography, social anthropology provides a critical perspective for better understanding everyday life in a globalized world, and the political, economic, and cultural interconnections within and among the societies of the world.

All students are strongly encouraged to take the opportunity to study and/or carry out research abroad and gain a basic knowledge of both subfields (Archaeology and Social Anthropology). Beyond this, most students focus their studies within one of the two programs, meeting the concentration requirements set forward by the particular program concerned. Some students may choose to pursue a combined focus on both approaches, meeting reduced concentration requirements for both Social Anthropology and Archaeology.

Senior theses are generally supervised within a program, and the tutorials concentrate on problems of research within the subfields of each program. Anthropology concentrators may, however, take tutorials for credit in both programs if they so choose. Field and laboratory research are encouraged although not required.

While specialization in either Social Anthropology or Archaeology is the most common pattern of study, the Department also encourages interdisciplinary work across programs or between Anthropology and other disciplines. The Anthropology Department allows students to arrange joint concentrations with other FAS departments when appropriate and possible. Such concentrations are restricted to honors candidates and culminate in an interdisciplinary senior thesis. A joint concentration involves an individualized, coherent plan of study approved by both of the departments involved. Harry Lewis, Gordon McKay Professor of Computer Science, best described this as “A joint concentration is meant to be a program that integrates two fields and aims towards a research thesis bridging the areas. In other words, a joint concentration in X and Y is meant for people who have an interest in the intersection of X and Y, not just in both X and Y independently.” The number of required Anthropology courses and basic program requirements may be reduced.

**REQUIREMENTS**
**Archaeology**
**Basic Requirements: 10 courses (40 credits), including 2 tutorials**

1. *Required* courses:
    1. Archaeological Method and Theory. Ordinarily met with GenEd 1105 (fall term) or Anthro1010 (prior to 2019)
    2. Five additional Archaeology courses, any level
    3. One Social Anthropology Course
    4. One course related to human evolution. This course must be approved by the DUS or ADUS
2. *Tutorials:*
    1. Sophomore year: Anthropology 97x, Sophomore Tutorial in Archaeology (spring term).
    2. Junior year: Anthropology 98a, Junior Tutorial in Anthropology (fall term).
3. *Thesis*: None.
4. *General Examination*: None.
5. *Other information*:
    1. Pass/Fail: Two courses may be taken Pass/Fail and counted toward the concentration. All

Anthropology tutorials are letter-graded.
2. *Languages:* The department itself has no language requirement. However, the importance of modern languages for research in all branches of Anthropology cannot be too highly stressed. Concentrators who expect to do work in Anthropology beyond the AB degree are most strongly urged to develop their language skills as undergraduates.
3. *Statistics / Archaeological Science:* Concentrators in combined Archaeology and Social Anthropology are encouraged to take courses in statistics, archaeological science and/or computer science (including GIS). Competence in handling quantitative data is extremely important in anthropological research, and such competence is best obtained through formal training in statistics and scientific methods.
4. *Study and Research Abroad:* Concentrators in Archaeology are encouraged to investigate the possibilities for studying and/or carrying out research abroad during the summer or during the academic year. If a student has received Harvard degree credit for courses taken in a Harvard-approved overseas studies program, that student may petition the DUS or ADUS for permission to count these courses toward the requirements of the Archaeology concentration. Ordinarily up to two courses per semester may be counted for concentration credit.
5. *Field Experience:* Concentrators are required to participate in a field experience. While this is not a course requirement, it may be completed by having an experience, training, or internship, including museum internships, for which there is not credit given.

**Requirements for Honors Eligibility: 12 courses (48 credits)**
**THESIS TRACK (Honors, High Honors, and Highest Honors attainable)**

1. *Required courses*:
    1. Archaeological Method and Theory. Ordinarily met with GenEd 1105 (fall term) or Anthro1010 (prior to 2019)
    2. Four additional Archaeology courses, any level
    3. Graduate-Level Research Seminar (2000-level)
    4. One Social Anthropology Course
    5. One course related to human evolution. This course must be approved by the DUS or ADUS
2. *Tutorials*:
    1. Sophomore year: Same as **Basic Requirements**.
    2. Junior year: In addition to Anthropology 98a (fall term), Archaeology honors candidates are strongly encouraged to enroll in Anthropology 98b, an individual Junior Tutorial, normally taken spring term, in which they carry out study and research directly related to the preparation of the senior thesis. Assignments may include a focused literature review, a grant proposal for summer research funding, etc.
    3. Senior year: Anthropology 99 (year-long 8-credit course: letter graded during the Fall term and SAT/UNSAT during the spring term), culminating in the submission of a senior thesis and related poster, followed by an oral presentation of and examination on the thesis.
3. *Thesis*: Yes with Oral Examination.
4. *General Examination*: None.
5. *Other information*: Same as **Basic Requirements**. Honors candidates usually carry out research for their senior theses during the summer between their junior and senior years.

**NON-THESIS TRACK**
Graduating seniors in Archaeology who are not thesis candidates and have taken a 2000 level course may be considered for a non-thesis honors recommendation of Honors (but not High or Highest Honors), provided that their concentration grade point averages calculated at the end of their next to last semester are among the highest twenty-five percent of non-thesis candidates in their graduating class.
**Social Anthropology**
**Basic Requirements: 10 courses (40 credits), including 2 tutorials**

1. *Required courses*
    1. Anthropology 1610: Ethnographic Research Methods (fall term)
    2. Four Social Anthropology courses, any level.
    3. Two courses in Anthropology (Social Anthropology or Archaeology).
    4. One related course: One additional course in Anthropology or in any social sciences field or advanced foreign language. Students may substitute a relevant course in humanities or science fields with approval from the DUS or ADUS.

2. *Tutorials*:
    1. Sophomore year: Anthropology 97z, Sophomore Tutorial in Social Anthropology (spring term).
    2. Junior year: Anthropology 98a, Junior Tutorial in Anthropology (fall term).
3. *Thesis*: None.
4. *General Examination*: None.
5. *Other information*:
    1. Pass/Fail: One course may be taken Pass/Fail and counted for concentration credit. This will ordinarily be in the related course category. All Anthropology tutorials are letter-graded.
    2. *Language:* No (but strongly encouraged).
    3. *Study Abroad:* Concentrators are strongly encouraged to participate in study abroad or internship programs. If a student has received Harvard degree credit for courses taken in a Harvard-approved overseas studies program, that student may petition the DUS or ADUS for permission to count up to two courses per semester toward the requirements of the concentration.

**Requirements for Honors Eligibility: 12 courses (48 credits)**
**THESIS TRACK (Honors, High Honors, and Highest Honors attainable)**

1. *Required courses*: Same as **Basic Requirements**.
2. *Tutorials*:
    1. Sophomore and Junior years: Same as **Basic Requirements**.
    2. Junior year: In addition to Anthropology 98a (fall term), Social Anthropology honors candidates are strongly encouraged to enroll in Anthropology 98b, an individual Junior Tutorial, normally taken spring term, in which they carry out study and research related to the preparation of the senior thesis.
    3. Senior year: Anthropology 99 (year-long 8-credit course: letter graded during the Fall term and SAT/UNSAT during the spring term), culminating in the submission of a senior thesis and an oral examination on that thesis.
3. *Thesis*: Yes with Oral Examination.
4. *General Examination*: None.
5. *Other information*: Same as **Basic Requirements**. Honors candidates usually carry out research for their senior theses during the summer between their junior and senior years.

**NON-THESIS TRACK**
All graduating seniors in Social Anthropology who are not thesis candidates may be considered for a non-thesis honors recommendation of Honors (but not High or Highest Honors), provided that their concentration grade point averages calculated at the end of their next to last semester are among the highest twenty-five percent of non-thesis candidates in their graduating class.
**Combining Archaeology and Social Anthropology**
**Basic Requirements: 10 courses (40 credits), including 3 tutorials**

1. *Required courses*:
    1. Archaeological Method and Theory. Ordinarily met with GenEd 1105 (fall term) or Anthro1010 (prior to 2019)
    2. Anthropology 1610: Ethnographic Research Methods (fall term)
    3. One course in Archaeology
    4. One Course in Social Anthropology
    5. One Course in Archaeology or Social Anthropology
    6. One Course in Archaeology or Social Anthropology. Graduate Research Seminar (2000-level) encouraged, but not required.
    7. One related course: One additional course in Anthropology or a related discipline, Human Evolutionary Biology, or human evolution. This course must be approved by the DUS or ADUS.
2. *Tutorials*:
    1. Sophomore year: Both Archaeology and Social Anthropology Sophomore Tutorials (Anthropology 97x and 97z, two courses, spring term).
    2. Junior year: Anthropology 98a, Junior Tutorial in Anthropology (fall term)
3. *Thesis*: None.
4. *General Examination:* None.
5. *Other information:*

1. *Pass/Fail:* Same as **Basic Requirements** for each program.
2. *Languages:* Same as **Basic Requirements** for each program.
3. *Statistics / Archaeological Science:* Concentrators in combined Archaeology and Social Anthropology are encouraged to take courses in statistics, archaeological science and/or computer science (including GIS). Competence in handling quantitative data is extremely important in anthropological research, and such competence is best obtained through formal training in statistics and scientific methods.
4. *Study Abroad:* Study abroad is encouraged. Consult the DUS or ADUS.

**Requirements for Honors Eligibility: 12 courses (48 credits)**
**THESIS TRACK (Honors, High Honors, and Highest Honors attainable)**

1. Required courses: Same as **Basic Requirements**.
2. Tutorials:
    1. Sophomore and Junior years: Same as **Basic Requirements**.
    2. Anthropology 99: Senior Tutorial (year-long 8-credit course: letter graded during the fall term and SAT/UNSAT during the spring term), culminating in the submission of a senior thesis and an oral examination on that thesis.
3. Thesis: Yes with Oral Examination.
4. General Examination: None.
5. Other information: Same as **Basic Requirements**. Prospective honors candidates are strongly encouraged to enroll in Anthropology 98b (spring term). Honors candidates usually carry out research for their senior theses during the summer between their junior and senior years.

**NON-THESIS TRACK**
All graduating seniors in combined archaeology and social anthropology who are not thesis candidates may be considered for a non-thesis honors recommendation of Honors (but not High or Highest Honors), provided that their concentration grade point averages calculated at the end of their next to last semester are among the highest twenty-five percent of non-thesis candidates in their graduating class.

**Joint Concentrations**
The programs in Archaeology and Social Anthropology of the Department of Anthropology both encourage a joint concentration with any other department that permits a joint concentration. A joint concentration is meant to be a program that integrates two fields and aims towards a research thesis bridging the areas. The Anthropology part of the joint concentration can serve as either the primary or allied field. Consult the DUS or ADUS and the concentration advisor in the allied field for details.

**Archaeology and another field outside of Anthropology**
For the Archaeology portion of the joint concentration, there is a six course requirement.

1. *Required courses:*
    1. Archaeological Method and Theory. Ordinarily met with GenEd 1105 (fall term) or Anthro1010 (prior to 2019)
    2. Anthropology 97x: Sophomore Tutorial in Archaeology (spring term).
    3. Anthropology 98a: Junior Tutorial in Anthropology (fall term).
    4. Three additional Archaeology courses, any level
    5. One additional Archaeology course: ordinarily Research Seminar (2000-level) expected

1. Because a joint concentration is an honors concentration, if Archaeology is the primary field, the following courses are also required: Anthropology 99: Senior Tutorial (year-long 8-credit course: letter graded during the fall term and SAT/UNSAT during the spring term), culminating in the submission of a senior thesis and an oral examination on that thesis.
2. Other information: Prospective honors candidates are strongly encouraged to enroll in Anthropology 98b (spring term). Honors candidates usually carry out research for their senior theses during the summer between their junior and senior years.
3. *Field Experience:* Archaeology Joint-Concentrators are encouraged to participate in a field experience but will depend on the nature of the joint-concentration. While this is not a course requirement, it may be completed by having an experience, training, or internship, including museum internships, for which there is not credit given.

**Social Anthropology and another field outside of Anthropology**

The Social Anthropology portion of the joint concentration consists of a six course requirement.

1. *Required courses:*
    1. Anthropology 1610: Ethnographic Research Methods (fall term).
    2. Anthropology 97a: Sophomore Tutorial (spring term).
    3. Anthropology 98a: Junior Tutorial (fall term).
    4. Two Social Anthropology courses, any level.
    5. One additional course in Anthropology.
2. Because a joint concentration is an honors concentration, **if Social Anthropology is the primary field**, the following courses are also required:
    1. One Social Anthropology course, any level.
    2. One additional course in Anthropology.
    3. Anthropology 99: Senior Tutorial (year-long 8-credit course).
3. Other information: Prospective honors candidates are strongly encouraged to enroll in Anthropology 98b (spring term). Honors candidates usually carry out research for their senior theses during the summer between their junior and senior years.

**Concentration requirements for the Joint Concentration in Human Evolutionary Biology (HEB) and Anthropology (Archaeology or Social Anthropology track, or both): 16 courses (64 credits)**

1. Five Anthropology Courses (in Social Anthropology or Archaeology or a mix of both), including one of either Anthropology 1610 or GenEd 1105 (or Anthro 1010 prior to 2019), and highly recommended Anthropology 98b Junior tutorial.
2. Sophomore tutorials: HEB 97; Anthropology 97x or 97z
3. Junior tutorials/seminars: Anthropology 98a; HEB Junior Research Seminar
4. Senior thesis tutorial HEB 99 or Anthropology 99 (full year)
5. Five additional courses
    1. LS1b
    2. LS1a/LPSa or HEB course (Depending on whether HEB is Primary or Allied)
    3. Human Evolution
    4. Anatomy/Physiology or Human/Primate Behavior
    5. HEB Course

*Please also note the following information:*
A signed form is required from the DUS or ADUS in **both** departments.
If Primary Field is expected to be Anthro, Special Permission is needed to Enroll in HEB 97 during Sophomore Year.

**Concentration requirements for the Joint Concentration in History and Anthropology (Archaeology or Social Anthropology track, or both): 14 courses (56 credits)**

1. Four Anthropology Courses (in Social Anthropology or Archaeology or a mix of both), including one of either Anthropology 1610 or GenEd 1105 (or Anthro 1010 prior to 2019)
2. Sophomore tutorials: History 97; Anthropology 97x or 97z
3. Junior tutorials/seminars: Anthropology 98a; a seminar in History resulting in a 20-page research paper using primary sources
4. Senior thesis tutorial History 99 or Anthropology 99 (full year)
5. Four additional History courses:
    1. One Western history course
    2. One Pre-modern history course
    3. One Non-Western history course
    4. Another course in History

*Please also note the following information:*
Two types of courses count automatically toward Anthropology/History concentration requirements:
1. Courses listed in the course catalogue's "History" section and historical courses in the catalogue's "Anthropology" section, as determined in consultation with the History DUS.
2. Courses taught in the General Education and/or Freshman Seminar programs by members of the History or Anthropology Department Faculty. Students wishing to count such courses toward their concentration requirements should consult the Undergraduate Office, as they may need to file

a petition requiring approval by the Director of Undergraduate Studies. Students may also apply to do an independent study, or History 91r, with a member of the Department; History 91r can be used to fulfill one of the elective course requirements.

The joint concentration also regularly accepts credit from Study Abroad toward concentration requirements. With the exception of certain Freshman Seminars taught by History or Anthropology faculty (see above), courses taken on Pass/Fail basis may not be counted for concentration credit.

**ADVISING**

Advising in the Department of Anthropology is carried out by the Director of Undergraduate Studies (DUS), the Assistant Director of Undergraduate Studies (ADUS), faculty, senior graduate students, and the Undergraduate Program Coordinator. The DUS has overall responsibility for the academic progress of undergraduates and, along with the ADUS, is available by appointment for advice on academic and administrative matters. The Undergraduate Program Coordinator also provides information on departmental and College requirements and on administrative matters, particularly to Social Anthropology students. Starting in the junior year and depending on their interests, undergraduates often begin to work more closely with individual faculty members, senior graduate students (especially in Social Anthropology), and members of the staff of the Peabody Museum (especially in Archaeology) within the tutorial system. Choice of a faculty adviser depends largely upon the academic and research interests of the student.

For up-to-date information on advising in Anthropology, please see the Advising Programs Office website.

**RESOURCES**

**Peabody Museum of Archaeology and Ethnology**

Founded in 1866, the Peabody Museum is among the oldest archaeological and ethnographic museums in the world with one of the finest collections of human cultural history found anywhere.

**Alfred P. Tozzer Memorial Library**

Founded in 1866, Tozzer Library is the oldest library in the United States devoted to Anthropology and contains more than 250,000 volumes, with a special emphasis on materials relating to the indigenous peoples of the Americas.

**Archaeological Research Labs**

The Mesoamerican Lab focuses on Mesoamerican archaeology, ethnology, epigraphy, and iconography; the Zooarchaeology Lab focuses on the research and analysis of animal remains form archaeological sites; the Joint Use Lab provides facilities and equipment for materials analysis in Archaeology and related disciplines.

**Additional Resources**

Anthropology's tradition of cross-cultural understanding and multidisciplinary approach to the study of the human condition has fostered strong links to many other disciplines and research centers across Harvard University. Social Anthropologists can be found in the Center for Middle Eastern Studies, the Asia Center, the Harvard-Yenching Institute, the Fairbank Center for East Asian Research, the Reischauer Institute of Japanese Studies, the South Asia Institute, the David Rockefeller Center for Latin American Studies, the Davis Center for Russian and Eurasian Studies, and the Faculties of Medicine, Public Health, and Education, as well as in other departments of the Faculty of Arts and Sciences. There are Archaeologists in the departments of Near Eastern Languages and Civilizations, Classics, and History of Art and Architecture, as well as a Standing Committee on Archaeology that includes individuals from across FAS who are practicing archaeologists or for whom use of the results of archaeological study are integral to their teaching and research. From time to time distinguished visiting scholars hold teaching appointments in the department. Harvard students have access to an exceptionally large number of professional anthropologists.

**FIELDWORK**

Fieldwork may be taken for credit through an approved university. Institute of Field Research archaeological field schools are pre-approved by the Department of Anthropology. Although concentrators will register directly with the other university, they must first obtain permission from the Department of Anthropology at Harvard and apply for credit through the Office of International Education. Upon completion of this work and receipt of the official transcript, the department will make a recommendation to the Office of International Education regarding the amount of concentration credit to be granted toward the AB degree.

**HOW TO FIND OUT MORE**
The department's website address is www.anthropology.fas.harvard.edu. The undergraduate office is Room 103B, Tozzer Anthropology Building, 21 Divinity Avenue (617-495-3814). Undergraduate Program Coordinator may be reached at anthrouc@fas.harvard.edu. The Director for Undergraduate Studies is Dr. Rowan K. Flad, Peabody Museum 57G, 11 Divinity Avenue (617-495-1966) rflad@fas.harvard.edu. The Assistant Director of Undergraduate Studies is Dr. Zoe Eddy, Tozzer Anthropology Building, Room 207, 21 Divinity Avenue (zeddy@fas.harvard.edu).

**ENROLLMENT STATISTICS**
**Number of Concentrators as of December**

| Concentrators | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Anthropology | 126 | 113 | 93 | 69 | 67 | 58 | 59 | 53 | 43 | 45 | 45 | 50 |
| Anthropology + another field | 6 | 7 | 6 | 10 | 7 | 7 | 7 | 7 | 8 | 11 | 8 | 10 |
| Another field + Anthropology | 6 | 2 | 6 | 4 | 5 | 5 | 8 | 7 | 7 | 8 | 15 | 17 |

# Applied Mathematics

**Professor Steven Gortler, co-Director of Undergraduate Studies**
**Dr. Sarah Iams, co-Director of Undergraduate Studies**
**Dr. Margo Levine, co-Director of Undergraduate Studies**

Mathematical modeling is ubiquitous throughout the physical, biological, social, engineering, and management sciences. Mathematical scientists who identify themselves primarily as applied mathematicians develop, implement, and study mathematical, statistical, and computational techniques broadly applicable in various fields. In addition, they bring mathematical modeling skills to bear on particular scientific problems, using judicious approximations to obtain insights and predictions when the underlying phenomena are thought to be relatively simple and well understood, or creating conceptual frameworks for quantitative reasoning and measurement when the underlying phenomena are complicated and less well understood. In their methodological role, they may function temporarily as mathematicians, statisticians, or computer scientists; in their phenomenological role, they may function temporarily as physicists, chemists, biologists, economists, engineers, and the like. In both roles, they must possess relevant knowledge, technical mastery, and educated taste; clearly this necessitates specialization. Avowed practitioners of mathematically-oriented segments of other disciplines equally may function temporarily as applied mathematicians.

The range of activities carried on under the aegis of the principal professional organization in the field, the Society for Industrial and Applied Mathematics (SIAM), can serve as an operational definition of the scope of the discipline. Various SIAM publications are readily accessible to Harvard students and student memberships are available. Ideally, over time, an applied mathematician demonstrates substantive involvement with both the mathematical and scientific aspects of their dual roles. In the long run, their contributions must be evaluated based on both methodological and phenomenological impact. Inside academia, their activities are usually carried out in collaboration with students or colleagues; outside academia, they often serve as part of a multidisciplinary team tackling complex problems under time and resource constraints. In either context, a premium is placed on having an outstanding ability to communicate with fellow technical professionals. Applied mathematics is inherently interdisciplinary, in motivation and in operation. This vision informs the design of the concentration.

The Applied Mathematics concentration consists of a broad undergraduate education in the mathematical sciences, especially in those subjects that have proved vital to an understanding of problems arising in other disciplines, and in some specific area where mathematical methods have been substantively applied. For concentrators, a core learning objective is building and demonstrating foundational knowledge in computation, probability, discrete, and continuous mathematics through the successful completion of the foundation and breadth courses. In addition, through their coursework,

concentrators should gain facility and comfort in using approximation to simplify problems and gain insight. They should learn to communicate effectively with fellow technical professionals, and should be prepared, by their senior year, to tackle mathematical modeling problems in their area of application, at the level of a senior thesis. Additionally, students can expect to be able to attain employment or, with appropriate planning, gain admission to graduate study in applied mathematics.

The concentration requirements are flexible, but structured and demanding. Individual programs should be arranged in consultation with an adviser, and are approved by the adviser and by the Director, or Associate Director, of Undergraduate Studies. The concentration is overseen by an interdepartmental Committee on Undergraduate Studies in Applied Mathematics, and administered by the School of Engineering and Applied Sciences (SEAS).

Students select the concentration because they like mathematics, and especially the use of mathematics to solve real-world problems. Some want a deeper involvement with an area of application than may be provided within a mathematics, statistics, or computer science concentration. Others want a more mathematically-oriented approach to an area of application than that normally provided within the corresponding concentration; mathematical economics is a prime example. Yet others want a special program not otherwise available, usually involving an area of application in which mathematical modeling is less common. Applied mathematics programs will typically involve a broader range of study within the mathematical sciences and a narrower range of study within the area of application than alternate programs offered by neighboring concentrations. With a little forethought, it is ordinarily straightforward to change the chosen area of application or to transfer between this concentration and neighboring ones until the end of the sophomore year, and often beyond.

Some concentrators go on to graduate work or to employment in their area of application, or in applied mathematics. Others go on to professional schools in law, medicine, or business. Students interested in entering a PhD program should plan to take more technical electives than the minimum required for concentration, and should plan their program carefully with the Director, or Associate Director of Undergraduate Studies.

**REQUIREMENTS**
**14-15 courses (56-60 credits)**

Prospective concentrators are encouraged to make early contact with concentration representatives. Students wishing to enter the concentration should review the concentration requirements, meet with the Associate Director or Director of Undergraduate Studies to discuss their proposed program, and then submit a program of study at studyplan.seas.harvard.edu/. Students should be aware that interdisciplinary and interdepartmental programs will usually be more demanding than conventional programs in an established discipline. Prerequisite or corequisite courses not included in the program of study may be needed to provide background or perspective.

In addition to the courses listed specifically below, more advanced courses may be approved by petition in the context of a particular program of study. A petition must propound in writing a coherent and persuasive argument for the intellectual merit of the proposal in question. In certain areas of application, undergraduates routinely take courses designated as primarily for graduate students. Recommendations or restrictions on course selection may flow from the choice of a particular area of application.

Total course requirements may be reduced from fifteen to no less than twelve, and the balance of foundation and breadth courses are dependent on placement in Math courses as listed below in item 1a. Such placement is granted based on an appropriate Advanced Placement examination, the Harvard Mathematics Placement Test, or an equivalent college-level course taken elsewhere, provided this bypass is validated by successful completion (honor grades) of more advanced courses. Students seeking placement based on college-level work done elsewhere must submit a petition to the Director or Associate Director of Undergraduate Studies, supplemented by suitable supporting materials. Transfer students from other colleges will have their programs considered on a case-by-case basis in response to a petition documenting their previous preparation.

1. ***Required courses:***

    1. **Foundation: Two to five courses (see note 1) in calculus and linear algebra.**
        1. Mathematics Ma and Mb or Mathematics 1a
        2. Mathematics 1b

3. Applied Mathematics 21a, 22b, Mathematics 21a
4. Applied Mathematics 21b, 22a, Mathematics 21b

2. **Breadth:** Seven to five courses (see item 1.1, below) from the following categories. Students must take courses from at least five out of the eight categories listed below. Of those, students must take at least one course in Computation and one course in Probability and Statistics. In addition, students must take a course drawn from at least one "continuous" category (Differential Equations or Analysis) and one drawn from at least one "discrete" category (Algebra, Optimization, or Discrete Mathematics). Students must show evidence of satisfying prerequisites for a course to count towards the concentration.
    1. *Computation:* First course: Applied Mathematics 111 and/or Computer Science 50. Additional courses: Applied Mathematics 205, 207; Computer Science 51, 61, 181, 182, 205; Statistics 121a, Statistics 121b; MCB 112
    2. *Probability and Statistics:* First course: either Statistics 110 or Mathematics 154, but not both. Additional courses: Statistics 111, 121, 139; Mathematics 117
    3. *Differential Equations:* Applied Mathematics 105, 108, 202; Mathematics 110
    4. *Analysis*: Applied Mathematics 104, 201, 202; Mathematics 112, 113, 114, 115, 118r
    5. *Algebra:*
        - Linear Algebra: Applied Mathematics 120, Mathematics 121
        - Abstract Algebra: Applied Mathematics 106; Mathematics 122, 123, 124
    6. *Optimization:* Applied Mathematics 121; Mathematics 116
    7. *Discrete Mathematics:* Applied Mathematics 107; Mathematics 152, 155r; Computer Science 121, 124, 125
    8. *Modeling and Approved Electives:* Applied Mathematics 50, 91r, 115; Economics 985; or an approved advanced technical elective from outside of the student's application area
3. **Application:** Five courses from an area of application in which mathematics has been substantively applied, selected to provide a coherent and cumulative introduction to mathematically-oriented aspects of the field.
4. **Notes:**
    1. The number of required courses depends on the starting Math course (see Requirements above).
        1. Students starting in Math Ma or 1a: 15 courses
            1. Math Ma (5 Foundation, 5 Breadth, 5 Application)
            2. Math 1a (4 Foundation, 6 Breadth, 5 Application)
        2. Students starting in Math 1b or higher: 14 courses
            1. Math 1b (3 Foundation, 6 Breadth, 5 Application)
            2. Math 21a or higher (2 Foundation, 7 Breadth, 5 Application)
            3. Note: Students starting in AM 21a, 22b, or Math 21a may take Mathematics 101 in their first or sophomore year as a third Foundation course; these students are then required to take only six courses in the Breadth category. Students may count AM 50 only if it is taken before AM115.
        3. Students may take Math 22ab, 23ab, 23ac, 25ab, 55ab in place of AM 21ab, AM 22ab, Math 21ab. In terms of preparing for future AM coursework, these courses are appropriate for students who have previously taken multivariable calculus and linear algebra at the level of AM 21ab, AM 22ab, Math 21ab.
    2. Honors: Recommendations for honors are based on the grade point average of the final plan of study, the rigor of the overall record, and the satisfaction of the Honors requirement. The Honors requirement is automatically satisfied with a B- or higher grade in Applied Mathematics 115 and satisfactory grades in the 115 prerequisites. The second option is a modeling project, undertaken in AM 91r, in which a mathematical analysis of a problem is undertaken. Papers describing the project must be turned in to the concentration for evaluation by the end of the semester in which the AM 91r is completed.
    3. Recommendations for High or Highest Honors depend on the grade average in the courses included in the final plan of study, the rigor of the overall record, and the completion and evaluation of a senior thesis.

2. *Thesis:* Optional (see item 1.2, 1.3).
3. *General Examination:* None.
4. *Other information:*
    1. *Pass/Fail*: All courses counted for concentration credit must be letter-graded.
    2. *Program of Study*: Students entering the concentration must file an Applied Mathematics

program of study at https://studyplan.seas.harvard.edu. The program must be reviewed with the student's adviser and updated as necessary each term thereafter before the deadline. Programs of study are initially approved by the adviser, and are subsequently approved by the Director or Associate Director of Undergraduate Studies.

3. *Joint Concentration*: Applied Mathematics may not be combined with any other field of concentration because of its intrinsically interdisciplinary nature; study of an area of application is already an essential part of the program.

**ADVISING**

The co-DUS', Professor Steven Gortler, am-advising@seas.harvard.edu, ; Dr. Margo Levine, am-advising@seas.harvard.edu, (617) 496-8129; and Dr. Sarah Iams, am-advising@seas.harvard.edu, (617) 495-5935. Subsequently, an adviser is assigned. Special arrangements are made for students whose area of application is mathematical economics, in cooperation with the Economics Department. If an adviser becomes unavailable, the student is reassigned to a new adviser. Students may seek further advice from the Director or Associate Director of Undergraduate Studies at any time.

For up-to-date information on advising in Applied Mathematics, please see the Advising Programs Office website.

**ENROLLMENT STATISTICS**
**Number of Concentrators as of December**

| Concentrators | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Applied Mathematics* | 101 | 159 | 177 | 196 | 226 | 244 | 275 | 285 | 279 | 305 | 316 | 299 |

*Applied Mathematics does not participate in joint concentrations.

# Art, Film, and Visual Studies

**Ruth Lingford, Director of Undergraduate Studies**

The concentration in Art, Film, and Visual Studies (AFVS) cultivates skills in both the practice and the critical study of the visual arts. Its components include photography, filmmaking, animation, video art, painting, drawing, printmaking and sculpture, as well as film and visual studies, critical theory, and the study of the built environment. The department has a strong commitment to fostering dialogue among makers, critics, and theorists. The modes of teaching combine the intensity of conservatory programs with the broad intellectual aims of a liberal arts college.

Within AFVS, there are three different areas of focus—1) studio arts, 2) film/video making, and 3) film and visual studies—and each have slightly different requirements. In studio arts and film/video, concentrators work toward comprehensive accomplishment in a chosen area of artistic production while simultaneously exploring a variety of other practices. In film and visual studies, concentrators pursue interdisciplinary approaches to the theory and history of images, space, art, and media. In all areas, AFVS concentrators work closely with faculty, predominantly in studios and small seminars, to gain understanding through both study and practice.

Students who would like to concentrate in AFVS need to have taken at least one AFVS course in their proposed area of focus, or be in the process of taking one their sophomore year, at the time of concentration declaration. In addition, students who would like to concentrate in AFVS are asked to have an advising conversation with a member of the department before the College's concentration declaration deadline. Please e-mail Professor Ruth Lingford, Director of Undergraduate Studies at lingford@fas.harvard.edu or Paula Soares, Manager of Academic Programs at soares@fas.harvard.edu or for more information.

Upon graduation, concentrators in AFVS enter a wide variety of fields. Some pursue careers as artists or filmmakers while others go into media and communications. Among the graduate schools to which AFVS concentrators are admitted are schools of architecture, animation, art, film, and photography, as well graduate schools of arts and sciences, medicine, and business.

**REQUIREMENTS**
**12 courses (48 credits)**
*Required courses (vary by track):*
**STUDIO ARTS AND FILM/VIDEO**

1. Introductory Studios/Film or Video Production Courses: At least two courses should be completed by the end of the sophomore year related to the student's area of focus. Introductory courses are typically numbered with two digits.
2. Intermediate Studios/Film or Video Production Courses: At least two courses should be completed by the end of the junior year related to the student's area of focus. Intermediate courses are typically numbered with three digits.
   ***Note**: A film/video thesis will be allowed only if it represents the 5th and 6th courses in the medium of the thesis.
3. Historical and Theoretical Courses: At least two courses are required. These are seminar and lecture courses offered in AFVS that explore the history and theory of the moving image, contemporary art, the built environment, and critical studies. Appropriate courses offered in other departments can count toward the history and theory requirements with prior AFVS department approval.
4. AFVS 97: Sophomore Tutorial: Required of all AFVS concentrators during their first full term in the concentration, ordinarily sophomore spring
5. Electives within the concentration: Five additional courses in AFVS, two of which may be AFVS 99, the senior thesis or senior project tutorial. AFVS 99 is considered an elective and is not a required course.
    1. ***Note**: Students may petition to have an appropriate triple-digit course count as a second introductory course, at the discretion of the DUS.

**FILM and VISUAL STUDIES**

1. *Introductory Courses*: Two courses comprising AFVS70, The Art of Film and one other double-digit seminar or lecture course in film and visual studies offered within the department. ***Students may petition to count an appropriate triple-digit course towards this requirement, per the discretion of the DUS***.
2. *AFVS 97*: Sophomore Tutorial: Required of all AFVS concentrators during their first full term in the concentration, ordinarily sophomore spring
3. *AFVS 98R:* Junior Tutorial: Research-based writing workshop
4. *Advanced Film and Visual Studies Seminars:* At least three advanced, three-digit seminars in film and visual studies.
5. *Electives*: Three courses directly related to film and visual studies, including an AFVS film production or studio course of the student's choosing. Offerings under this heading will include both film and visual studies classes offered in AFVS by regular and visiting faculty as well as pertinent film studies classes offered in departments outside of AFVS with prior departmental approval.
6. *Senior Thesis or Senior Project*: Students who write a thesis or senior project essay will enroll in AFVS 99, which constitutes two courses. Students are strongly encouraged to write a thesis or senior project essay, though it is not required. Students who choose not to write a thesis will instead take two additional advanced film and visual studies courses (these choices are subject to the approval of the Director of Undergraduate Studies). AFVS 99 is considered an elective and is not a required course.
    1. ***Note:** Students should consult with the Director of Undergraduate Studies or the Manager of Academic Programs to discuss which courses in other departments may count toward AFVS film and visual studies requirements.

**INFORMATION FOR ALL TRACKS**

1. *Tutorials and Supervised Study:*
    1. *AFVS 97: Sophomore Tutorial*: Required of all AFVS concentrators during their first full term in the concentration, ordinarily sophomore spring
    2. AFVS 99: Tutorial-Senior Year. Senior Projects/Theses. AFVS 99 is presumed to be a year-long 8-credit course but may be divided if necessary. A thesis or senior project is not required. (For further information please see item 3, below).

3. AFVS 91R: Special Projects: In very rare instances, open to advanced students who wish to carry out a special project under supervision. Professional specialization is not the aim of this course. It is intended for specially qualified students who wish to extend work begun in a regular department course. Students wishing to enroll in AFVS 91r must find a member of the faculty to advise the project and submit an application to the Director of Undergraduate Studies.
    1. ***Note:** All tutorials and special projects courses in AFVS are letter-graded only. Application forms for all AFVS tutorials are available in the department office or from the department's website.
4. *Thesis*: Qualified students may only undertake a thesis upon approval by the AFVS Honors Board. A filmmaking thesis must represent the third year of work in film production. A thesis in video must represent the third year of work in film and/or video production.
   All theses should be preceded by a related critical or historical course. Students who want to do a thesis should plan their sophomore and junior year courses accordingly. No concentrator in Art, Film, and Visual Studies is required to do a thesis or senior project to be recommended for honors.
   It is also possible to enroll in an AFVS 99 tutorial without doing a thesis. Like a thesis, these senior projects are undertaken with a tutorial adviser but do not undergo some of the rigors associated with the thesis (including thesis reviews, reader evaluations, and the requirement of a finished body of work). A final body of work may or may not result from an AFVS 99 senior project. For further information on the differences between an AFVS 99 tutorial with thesis and an AFVS 99 tutorial without thesis, please consult with the Director of Undergraduate Studies or the department's website.

2. *General Examination:* None.
3. *Other Information:*
    1. *Related courses for concentration credit*: Ordinarily, no more than two courses taken outside Art, Film, and Visual Studies or History of Art and Architecture may be so counted. It is strongly recommended that studio concentrators with little background in the history of art take introductory courses in history of art and architecture as soon as possible.
       Concentrators in all areas of the department who wish to receive concentration credit for any non-AFVS course (in the Faculty of Arts and Sciences, at another of Harvard's graduate schools, at MIT, in the Harvard Summer School, or while studying out of residence) must submit a course requirement substitution form, available on the AFVS website, even if the course is cross-listed. If the course is not cross-listed, a syllabus must accompany the petition. Syllabi are not required to accompany cross-listed course petitions.
       Courses in history of art and architecture, theater design, and some courses in the field of cultural studies may be counted for concentration credit, subject to the approval of the Director of Undergraduate Studies when the Plan of Study is filed.
    2. *Students who are interested in pursuing a joint concentration in Art, Film, and Visual Studies and another concentration must meet with the Director of Undergraduate Studies to discuss this potential course of study.*
    3. *Pass/Fail*: Courses counting for concentration credit may not be taken Pass/Fail or SAT/UNS, except that one Freshman Seminar may be counted for elective concentration credit if taught by a department faculty member and consistent with AFVS department offerings, and the student has received a positive evaluation.
    4. Work done out of residence: A student wishing to count work done out of residence toward concentration requirements must have the plan for such work approved by the Director of Undergraduate Studies and the Office of International Education prior to undertaking it. No credit will be given for work done out of residence until this work, when completed, is evaluated by the faculty of the department. Ordinarily not more than three courses taken out of residence will be counted for concentration credit. For information on programs recommended by the faculty of the department, please visit the Office of International Education website.
    5. *Honors*: Ordinarily, no student whose overall grade point average in the concentration falls below B will be recommended for honors. No concentrator in Art, Film, and Visual Studies is required to do a thesis to be eligible for an honors recommendation from the department.

**ADVISING**

Departmental academic advising is provided by the Director of Undergraduate Studies who meets individually with concentrators to discuss course selection. Information and advice are also available throughout the year in the Carpenter Center from Paula Soares, Manager of Academic Programs, who is

available on a walk-in basis during most regular office hours. Each new concentrator is assigned a faculty adviser and is required to meet with the adviser at least once at the start of each term to review their plan of study. Students are reminded that they are each ultimately responsible for the fulfillment of concentration requirements, and should check regularly on the current status of their progress.

For up-to-date information on advising in Art, Film, and Visual Studies, please see the Advising Programs Office website.

**RESOURCES**
Aside from providing the space in which the Department of Art, Film, and Visual Studies holds many of its classes, the Carpenter Center for the Visual Arts, designed by world-renowned architect Le Corbusier, is an important landmark in the recent history of architecture and is the setting in which Harvard evidences its concern for contemporary expression in the visual arts. During the academic year exhibitions, performances, events, film screenings, and lectures are offered. In addition, the Harvard Film Archive, housed in the Carpenter Center, mounts an ongoing program of film screenings.

The Carpenter Center contains studio classrooms for the practice of the studio arts. The department also holds classes in Sever Hall, where most of the film, video, and animation studio courses are conducted. Studios at 6–8 Linden Street are used by practicing artists and photographers, including members of the faculty and senior concentrators doing thesis work, when applicable.

Art, Film, and Visual Studies concentrators benefit from the unusually rich University collections of Harvard's museums: The Harvard Art Museum, The Museum of Natural History, and Semitic, Museum containing Western, Asian, and ethnographic art. Harvard's library holdings in art and archaeology include more than 250,000 books and more than 1,500,000 photographs and slides.

The Museum of Fine Arts is one of Boston's great cultural resources. Other resources are the ICA Boston, the MIT List Visual Arts Center, and the commercial and non-profit galleries of the greater Boston area.

**HOW TO FIND OUT MORE**
Further information about the concentration may be obtained from the Director of Undergraduate Studies, Ruth Lingford (Lingford@fas.harvard.edu) or the Manager of Academic Programs, Paula Soares (soares@fas.harvard.edu, 617-496-4469). The department has an extensive website, providing a range of information on the faculty, courses, the Carpenter Center lecture series as well as exhibition schedule.

**ENROLLMENT STATISTICS**
**Number of Concentrators as of December**

| Concentrators | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Visual and Environmental Studies | 80 | 83 | 69 | 65 | 59 | 52 | 37 | 54 | 56 | 59 | 53 | 48 |
| Visual and Environmental Studies + another field | 1 | 1 | 0 | 2 | 0 | 0 | 0 | 1 | 8 | 5 | 11 | 10 |
| Another field + Visual and Environmental Studies | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 4 | 7 | 10 | 12 |

# Astrophysics

**Professor Karin Öberg, Director of Undergraduate Studies**

The concentration in Astrophysics builds the foundation from which students may consider some of the deepest questions of the physical universe. What was the state and composition of the Universe at the

moment of the Big Bang? What is the nature of the force that currently dominates the expansion of the Universe? How do space and time behave in the vicinity of the black hole? How do galaxies form, and how do stars and planets form within those galaxies? Are there habitable worlds other than our own?

The science of astrophysics involves the study of matter and radiation in the universe as understood through the laws of physics. Astronomical phenomena exhibit an extreme range of physical conditions, from superfluid neutrons in neutron stars, high-temperature nuclear reactions in supernovae, and strong gravitational fields near black holes, to the unique state of the universe during its earliest phases. Theoretical attempts to describe these and more familiar phenomena (such as stars and galaxies) have achieved a useful understanding in many cases. However, our overall knowledge of the universe is still woefully incomplete, and our contemporary physical knowledge is often stretched to its limits in attempting to understand physical conditions that cannot be reproduced in terrestrial laboratories.

The concentration in Astrophysics introduces students to a broad range of phenomena through a program of both observational and theoretical courses. This program builds from a foundation of modern physics to a general account of the known contents of the universe. Astronomy 16 and 17 provide a complete introductory survey to the major fields of astrophysics. The research tutorial, Astronomy 98, places students in close contact with the wide range of research activities at the Harvard-Smithsonian Center for Astrophysics. Undergraduates are strongly encouraged to pursue research projects (conducted under the mentorship of members of the faculty), which culminate in their junior papers and optional senior theses. Since the emphasis of astrophysics is on the explanation of phenomena in the universe in terms of physical theory, the initial stages of a concentration in Astrophysics closely resemble those of the Physics concentration, and the courses offered by the Department of Astronomy are readily accessible to any student with a good physics background. Our concentration offers avenues similar to Physics for future employment and research opportunities.

Astrophysics offers joint concentrations with other departments. In general, such concentrations involve meeting requirements for honors candidates in both fields. Joint concentrations combining Astrophysics with either Physics or with Earth and Planetary Sciences are particularly encouraged, although various other combinations are certainly possible. Students interested in joint concentrations are encouraged to contact the Director of Undergraduate studies, Professor Karin Öberg, at 617-496-9062 or koberg@cfa.harvard.edu.

**REQUIREMENTS**
**12 courses (48 credits)**

1. *Required courses:*
    1. Astronomy 16 and 17 (2 courses; see 7.a. below).
    2. Physics 15a, 15b, and 15c (3 courses; see 7.b. below).
    3. Mathematics 21a and 21b, or Mathematics 23a and 23b, or Mathematics 25a and 25b, or Applied Mathematics 21a and 21b (2 courses; see 7.c. below).
    4. Astronomy 98: Research Tutorial, generally taken in the spring semester of the junior year (1 course).
    5. Two additional courses in astronomy (2 courses; see 7.d. below).
    6. Two additional courses in astronomy or related fields to complete the requirement of 12 courses (2 courses; see 7.e. below).
2. *Tutorial:* Required, see 1.d. above.
3. *Honors Eligibility:* Students who wish to be considered for honors must satisfy requirements 1.e. and 1.f. by completing Astronomy 99 and/or courses at the 100 level or above. None of the courses satisfying 1.e. or 1.f. may be taken Pass/Fail. Courses that meet this requirement include:
    1. Astronomy 99, a year-long 8-credit course leading to the senior thesis. The Department of Astronomy is located within the Harvard-Smithsonian Center for Astrophysics, one of the world's largest astrophysical research institutes. The Center for Astrophysics offers significant undergraduate research opportunities, which students are encouraged to pursue through the senior thesis.
    2. Any 100-level or 200-level course in astronomy.
    3. Physics 143a, 143b, 151, 153, or 181.
    4. Earth and Planetary Sciences 141,142, or 160.
    5. Applied Mathematics 104, 105, 111, or 115.
4. *Thesis:* Optional. See item 3 above.
5. *Joint concentrations*: Joint concentrations are permitted to enable students to pursue study at the

interface of Astrophysics and another field such as Physics or Earth and Planetary Sciences. Students must meet with the Director of Undergraduate Studies to develop the plan of study.

6. *General Examination:* None.
7. *Other information:*
    1. Astronomy 16 and 17: Together these two courses provide a complete introductory survey of astrophysics using single-variable calculus and freshman mechanics. These courses are not sequential and thus may be taken in either order.
    2. *Physics*: Physical Sciences 12a and 12b may be substituted for Physics 15a and 15b provided students follow with Physics 15c. Qualified students may replace Physics 15a with Physics 16, to be followed by Physics 15b and 15c.
    3. *Math*: Math Ma, Mb, 1a, and 1b normally do not count toward concentration credit.
    4. Students may count one course out of Astronomy 2, Astronomy 5, a freshman seminar in Astronomy, or a course offered in the Science of the Physical Universe category of the Program in General Education that focuses on astronomy for concentration credit, provided the course is completed prior to enrolling in other courses offered by the Department of Astronomy.
    5. *Related fields*: Includes all departmental courses offered in physics, earth and planetary sciences, mathematics, and applied mathematics that count towards the respective concentration requirements. Appropriate courses in applied physics, computer science, chemistry, engineering sciences, mathematics, and statistics may be counted for concentration credit with permission from the Director of Undergraduate Studies.
    6. Graduate Study: Students considering graduate study should contact the Director of Undergraduate Studies to prepare a study plan to meet this goal.
    7. *Pass/Fail*: At most one of the courses counted for concentration credit may be taken Pass/Fail.

**ADVISING**

Upon joining the concentration, students are assigned a faculty adviser; students continue with the same adviser throughout their three years, unless there is a particular reason for making a change. Students meet with their adviser at least once per term and at other times as needed.

For up-to-date information on advising in Astrophysics, please see the Advising Programs Office website.

**RESOURCES**

The Department of Astronomy is located within the Harvard-Smithsonian Center for Astrophysics, which also contains the Smithsonian Astrophysical Observatory and Harvard College Observatory, at 60 Garden Street and 160 Concord Avenue, Cambridge. The Center for Astrophysics has a large staff of scientists and is among the largest institutions devoted to astronomy and astrophysics in the world. A very broad range of astrophysical research is conducted by the many scientists at the Center, in its divisions of Atomic and Molecular Physics; High-Energy Astrophysics; Optical and Infrared Astronomy; Radio and Geoastronomy; Theoretical Astrophysics; and Solar, Stellar, and Planetary Sciences. Scientists in these divisions encourage students to participate in their research. Full-time summer and part-time academic year employment are often available for Harvard undergraduates at the Center; please contact the Director of Undergraduate Studies for more information.

Through the Center for Astrophysics students may make use of a wide range of observational, experimental, and theoretical facilities. These include two 6.5-meter Magellan Telescopes in Chile; the Multiple-Mirror Telescope and the 1.5-m and 1.2-m reflecting telescopes of the Whipple Observatory on Mount Hopkins, Arizona; and the Submillimeter Array on Mauna Kea in Hawaii. In addition, students may participate in the analysis of data from a number of national and international observatories, including X-ray data from the Chandra X-ray Observatory, ultraviolet and optical data from the Hubble Space Telescope, solar data from SOHO, radio data from the Very Large Array and the VLBI network, and infrared data from the Spitzer Space Telescope.

**HOW TO FIND OUT MORE**

The Director of Undergraduate Studies for the concentration is Professor Karin Öberg. Her Observatory office is 60 Garden Street, MS-16, Center for Astrophysics, Perkins 346 (617-496-9062); her email address is koberg@cfa.harvard.edu. A map showing the location of the Observatory complex can be found at the Center for Astrophysics website. The Astronomy department office is located at the same address in room P-243 (617-495-3753). Online information about the Astronomy department is available

at the department's website. If you are interested in study abroad, please contact the Director of Undergraduate Studies.

**ENROLLMENT STATISTICS**
**Number of Concentrators as of December**

| Concentrators | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Astronomy | 3 | 9 | 8 | 6 | 7 | 10 | 9 | 6 | 2 | 5 | 7 | 8 |
| Astronomy + another field | 1 | 8 | 7 | 12 | 10 | 16 | 12 | 17 | 17 | 11 | 17 | 11 |
| Another field + Astronomy | 5 | 7 | 10 | 8 | 6 | 6 | 7 | 5 | 5 | 3 | 5 | 5 |

# Biomedical Engineering

**Professor Demba Ba, Director of Undergraduate Studies**
**Dr. Linsey Moyer, Associate Director of Undergraduate Studies**

Biomedical Engineering lies at the intersection of the physical and life sciences, incorporating principles from physics and chemistry to understand the operation of living systems. As in other engineering fields, the approach is highly quantitative: mathematical analysis and modeling are used to capture the function of systems from subcellular to organism scales. An education in Biomedical Engineering, and engineering more broadly, enables students to translate abstract hypothesis and scientific knowledge into working systems (e.g., prosthetic devices, imaging systems, and biopharmaceuticals). This enables one to both test the understanding of basic principles and to further this knowledge, and it places this understanding in the broader context of societal needs.

In recognition of the pivotal importance of the life sciences and the technologies they inspire to our society, Harvard is committed to broadly educating engineers who will become leaders in the developing field of Biomedical Engineering. The objectives of this concentration include providing students a solid foundation in engineering, particularly as applied to the life sciences, within the setting of a liberal arts education. The concentration is flexibly structured for a diversity of educational and professional objectives. It enables the acquisition of a broad range of skills and attitudes drawn from the humanities, social sciences and sciences, in addition to engineering, which enhance engineering knowledge and which will contribute to future leadership and technical success.

The overarching intellectual goal of biomedical engineering is to apply quantitative engineering analysis to understand the operation of living systems and design novel systems to satisfy unmet needs in medicine and industry. Specific objectives for students undertaking the A.B. in Biomedical Engineering are:

- Utilize mathematical analysis and modeling to capture the function of systems from subcellular to organism scales.
- Understand and apply the fundamental engineering disciplines (thermodynamics, fluid mechanics, kinetics); sciences (physics, biology, chemistry); and mathematics (statistics, differential equations) to solve biomedical problems.
- Translate scientific knowledge into working systems (e.g., prosthetic devices, imaging systems, and biopharmaceuticals).
- Gain depth of knowledge in chemical, biological, materials, and engineering science aspects of bioengineering.

The AB degree consists of 14 courses (56 credits). This degree prepares students for the practice of Biomedical Engineering and for graduate study in engineering and medicine, and it is an excellent preparation for careers in other professions (business, law, etc.) as it provides an ideal framework for a well-rounded technical and scientific education. The curriculum is highly structured, with advanced courses building on the knowledge acquired in math, science, and introductory engineering science

courses. Concentrators are encouraged to complete the common prerequisite course sequence in their first two years at Harvard. This includes Math (21a and 21b, 22a and 22b, 23a and 23b, or Applied Mathematics 21a and 21b, or 22a and 22b), Life Sciences and Chemistry (Life Sciences 1a and 1b), Physics (Applied Physics 50a and 50b; Physics 15a and 15b or 16 and 15b, or Physical Sciences 2 and 3 or 12a and 12b), and Engineering Sciences 53. Students are cautioned that it is more important to derive a solid understanding of these basic subjects than to complete them quickly without thorough knowledge; this material is extensively used in many subsequent courses. The Sophomore Forum provides an opportunity for students to become familiar with the range of engineering disciplines, research opportunities within the School, and to make industrial contacts in an informal setting.

The technologies that engineers create are changing at an amazing rate, but the fundamental tools of engineering that enable these advances remain more constant. The Biomedical Engineering curriculum emphasizes a solid background in the chemical and biological aspects of the Biomedical Engineering field, with ample opportunity to learn about state-of-the-art technologies. In particular, students will take courses in systems modeling (ES 53 and BE 110) to better understand and mathematically model non-linear, complex biological systems; thermodynamics (ES 181, ES 112, or MCB 199) to appreciate the basic driving forces underlying biological and chemical systems; the fundamental processes of heat and mass transport (ES 123) that often control the rates of system changes; and molecular to tissue level engineering of biological systems (BE 121, 125 or ES 221). Through this coursework students also gain experience in the engineering design process, the engineering activity that requires creative synthesis as well as analysis.

**REQUIREMENTS**
**14 courses (56 credits)**

1. **Required courses:**
    1. *Mathematics*: Applied Mathematics 21a and 21b; Applied Mathematics 22a and 22b; Mathematics 21a and 21b; Mathematics 22a and 22b; or Mathematics 23a and 23b.
    2. *Physics*: Applied Physics 50a and 50b; Physical Sciences 2 and 3 or 12a and 12b; or Physics 15a and 15b, or 16 and 15b.
    3. *Statistics*: Applied Math 101 or Statistics 111.
    4. *Organic Chemistry*: Chemistry 17 or 20.
    5. *Cell Biology and Genetics*: Life and Physical Sciences A or Life Sciences 1a, and Life Sciences 1b. Students who take Life and Physical Sciences A should consult with the Director of Undergraduate studies to get advice on advanced class selection.
    6. *Engineering Sciences (five courses)*: ES 53; BE 110; ES 123; one of the following: ES 181, ES 112, or MCB 199; one of the following: BE 121, BE 125, BE 160, BE 191, or ES 227.
    7. *Approved Elective (one course)*: BE 121, BE 125, BE 128, BE 129, BE 130, BE 160, BE 191, ES 120, ES 221, ES 227, ES 228, Chem 27, 30 or 160; CS 50; MCB 60, 80 or OEB 53, or 100- or 200-level engineering courses by prior approval. ES 91r cannot count as an elective.
2. *Sophomore Forum*: Sophomore year. Non-credit. Spring term.
3. *Thesis*: required for recommendations of high honors and highest honors, and for joint concentrators.
4. *General Examination*: None.
5. *Other information:*
    1. By prior petition and approval, other advanced undergraduate or graduate courses, as well as courses at MIT, can be used to satisfy general requirements and specialization requirements and electives. Petitions will only be considered for courses that possess technical content at a level similar to other upper-level engineering courses at SEAS.
    2. *Pass/Fail and Sat/Unsat*: All courses for concentration credit must be letter-graded.
    3. *Plan of Study*: Concentrators are required to file an approved departmental Plan of Study and to keep their plan up to date in subsequent years. Plan of Study forms may be obtained from the Office of Academic Programs (Pierce 110) or from the School of Engineering and Applied Sciences (SEAS) website.
    4. *Independent Project*: Students are required to have a substantial research experience in order to deepen their understanding of at least one aspect of the Biomedical Engineering field, and to develop hands-on experience in the scientific method and/or technology development. This typically would be fulfilled through a summer project resulting in a significant written report; alternatively, ES 91r or ES 100hf may be used to fulfill this requirement.
    5. *Joint Concentrations*: Biomedical Engineering participates in joint concentrations. The

requirements for joint concentrators are the same as for sole concentrators; in addition, a joint concentrator is required to write an interdisciplinary thesis that combines the two fields. This thesis is required regardless of whether Biomedical Engineering is the primary or allied concentration.

6. Any exceptions to these policies must be approved via written petition.

**ADVISING**

Students interested in concentrating in Biomedical Engineering should discuss their plans with the Director of Undergraduate Studies, Professor Demba Ba, demba@seas.harvard.edu, 617-496-1228; or the Assistant Director of Undergraduate Studies, Dr. Linsey Moyer, lmoyer@seas.harvard.edu, (617) 496-2840; or the Undergraduate Academic Programs Manager, Kathy Lovell, klovell@seas.harvard.edu, (617) 496-1524.

Each undergraduate who elects to concentrate in Biomedical Engineering is assigned a faculty adviser. If students do not request a change in adviser, they have the same adviser until they graduate. Each student is reassigned to another faculty member while the student's original faculty adviser is on leave. It is expected that students will discuss their Plans of Study and progress with their Director or Assistant Director of Undergraduate Studies at the beginning of each term. Students may also seek advice from their faculty adviser, the Director or Assistant Director of Undergraduate Studies, or the Undergraduate Academic Programs Manager at any time.

**HOW TO FIND OUT MORE**

Further information is available from the Undergraduate Academic Programs Manager in the School of Engineering and Applied Sciences Office of Academic Programs, Pierce Hall 110 (617-495-2833).

**ENROLLMENT STATISTICS**
**Number of Concentrators as of December**

| Concentrators | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|---|---|
| Biomedical Engineering | 17 | 41 | 48 | 56 | 52 | 59 | 35 | 33 | 31 | 40 |
| Biomedical Engineering + another field | | 1 | 1 | 2 | 0 | 2 | 2 | 4 | 4 | 4 |
| Another field + Biomedical Engineering | | 1 | 1 | 2 | 2 | 1 | 0 | 3 | 1 | 0 |

# Chemical and Physical Biology

**Professor Adam Cohen, Co-Head Tutor**
**Professor Rachelle Gaudet, Co-Head Tutor**

The Chemical and Physical Biology (CPB) concentration provides students with a broad foundation in the physical and life sciences. This concentration is designed for students interested in applying quantitative tools, physical concepts, and chemical principles to the study of biology.

Remarkable progress in the last four decades has revealed the atomic structure of proteins, enzymes, and genes; the nature of the genetic code; and how genes can be turned on or off in response to the demands of the environment. As our understanding of fundamental biological processes has increased, so has our appreciation that the focus on information transfer through nucleic acids provides an inadequate basis for understanding living systems. The activities of proteins are regulated by post-translational modifications—chemical changes in protein structure—and are affected by small signaling molecules. Dissecting metabolic pathways and reconstructing cellular networks requires supplementing the traditional arsenal of molecular, genetic, biochemical, and cell biological techniques with advances in chemical and physical methods that make it possible to characterize the state of a biological system under a given set of conditions. Chemical and physical biology provides a link between classical approaches to studying biology and the chemical tools and physical methods required to understand dynamic changes in complex biological systems.

Students who are interested in understanding living systems in detail will require considerable proficiency in mathematics and physics as well as a broad background in both chemistry and biology. In its emphasis on quantitative, physical, and chemical tools, this concentration represents a significant departure from traditional undergraduate programs of study in the biological and life sciences. Our goal is to provide the next generation of life scientists with the background needed to make new advances in the quantitative understanding of living systems. The CPB concentration is intended primarily for students considering careers in research.

All students are required to participate in a tutorial unless engaged in thesis research. Tutorials for students in both Chemical and Physical Biology and Molecular and Cellular Biology are offered by the Board of Tutors in Biochemical Sciences, which was established in 1926. Tutors hold a PhD and/or an MD degree and meet with their students, singly or in small groups, about twice a month to discuss topics tailored largely to individual interests and needs. Tutorial sessions typically consist of readings selected from the primary literature or relevant texts. Mentoring on career choices, the research experience, and other academic issues is a logical extension of the tutorial. The tutorial is not taken for credit and therefore does not appear on the my.harvard crimson cart or transcript. A handout that describes the history, goals, and format of the tutorial program is available online.

All students are required to obtain a minimum of one term of laboratory research experience. This requirement may be fulfilled through a project lab course, a term of laboratory research (Chemical and Physical Biology 91), or research for a senior thesis (Chemical and Physical Biology 99A and B).

A thesis based on laboratory research is required to be eligible for honors in the Chemical and Physical Biology concentration. Students are encouraged to begin thesis research in a laboratory no later than the start of their junior year.

**REQUIREMENTS**
**Basic Requirements: 16 courses (64 credits)**

1. *Required courses*:
    1. *Life Sciences (2 courses)*: Life Sciences 1a (or Life and Physical Sciences A) and Life Sciences 1b, or equivalent.
    2. *Biology (2 courses)*: MCB 60 and one additional course selected from MCB 63, MCB 64, MCB 65, MCB 68, or MCB 80.
    3. *Chemistry (2 courses)*: One course in general or inorganic chemistry (chosen from Physical Sciences 1, 10 or 11; Chemistry 40 or 160; or a suitable equivalent) and one course in physical chemistry (chosen from Chemistry 60, Molecular and Cellular Biology 65 or 199, Chemistry 161, or a suitable equivalent).
    4. *Organic Chemistry (2 courses)*: Chemistry 20 and 30, or Chemistry 17 and 27, or equivalent.
    5. *Mathematics (2 courses)*: Mathematics 19a and 19b, or 21a and 21b, or Applied Mathematics 21a and 21b.
    6. *Physics (2 courses)*: One course in mechanics (chosen from Physics 16 or 15a, Physical Sciences 2 or 12a, or Applied Physics 50a), and one course in electricity and magnetism (chosen from Physics 15b, Physical Sciences 3 or 12b, or Applied Physics 50b). Students who do not take at least one course at the level of Physics 15 or 16 or Physical Science 12 must take a computational course as one of the upper level courses (see item 1g, below) chosen from CS 50 or 109; Applied Math 111, 115 or 126; MCB 111, 112, 131, or 199; or other computational class approved by the Head Tutor.
    7. Three upper-level courses in the natural sciences, engineering, and/or mathematics. Courses that meet this requirement include any 100-level chemistry, molecular and cellular biology, or physics course. Other courses that meet this requirement are posted here.
    8. Students who do not write a thesis based on laboratory research (see item 3 under **Requirements for Honors Eligibility**) must take one upper level project lab course (such as Life Sciences 100r or Chemistry 100r) or enroll in one term of Chemical and Physical Biology 91.
2. *Tutorial*: The tutorial program is an important component of the concentration. It provides a mechanism for students to engage in mentorship relationships with the MCB faculty and members of the Board of Tutors in Biochemical Sciences. The goals are to (1) provide opportunities for discussions about science and its role in the larger community, (2) provide students with the foundation to apply their education and the scientific method to life outside of the classroom and Harvard and (3) advise and inform students on curricular and pre-professional choices. The tutorial

is a non-credit program that spans the whole length of time the student is part of the concentration. A handout that describes the history, goals, and format of the tutorial program is available online.

**Requirements for Honors Eligibility: 16 courses (64 credits)**

1. *Required Courses*: Same as **Basic Requirements**.
2. *Tutorial*: Same as **Basic Requirements**.
3. *Thesis*: A thesis based on independent laboratory research is required for honors eligibility. Students should therefore enroll in two terms of Chemical and Physical Biology 99, one of which counts towards the upper-level course requirement (see item 1g, above).

**ADVISING**
Professors Adam Cohen and Rachelle Gaudet and Dr. Dominic Mao are available to concentrators and pre-concentrators to provide guidance on course selection, laboratory research, and the fulfillment of concentration requirements.

**RESOURCES**
A tutorial reference library is housed in the CPB Undergraduate Office at 7 Divinity Avenue (95 Sherman Fairchild building), which contains books and hard copies of past senior theses (thesis titles from 2011-present can be viewed here). Four rooms in the upper level of the undergraduate office are used by concentrators for tutorial meetings and as study spaces.

**HOW TO FIND OUT MORE**
The Co-Head Tutors for the Chemical and Physical Biology concentration are Professors Adam Cohen and Rachelle Gaudet, and the Concentration Adviser is Dr. Dominic Mao (dominicmao@fas.harvard.edu or 617-495-4106). Visit https://www.mcb.harvard.edu/undergraduate/chemical-and-physical-biology/ or contact Dr. Dominic Mao (dominicmao@fas.harvard.edu or 617-495-4106) for more information.

**ENROLLMENT STATISTICS**
**Number of Concentrators as of December**

| Concentrators | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chemical and Physical Biology | 33 | 65 | 59 | 57 | 63 | 48 | 42 | 42 | 50 | 45 | 39 | 40 |
| Chemical and Physical Biology + another field | 22 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 4 |
| Another field + Chemical and Physical Biology | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 1 |

# Chemistry

**Dr. Gregg Tucci, Director of Undergraduate Studies**

Chemistry is the science of the structure, properties, and reactions of matter. It is both a basic science, fundamental to an understanding of the world we live in, and a practical science with an enormous number and variety of important applications. Knowledge of chemistry is fundamental to an understanding of biology and biochemistry and of certain aspects of geology, astronomy, physics, and engineering.

The most important motivation for a concentration in Chemistry is an intrinsic interest in the subject. Career opportunities in chemistry include the areas of basic research, applied research and development, biotechnology, chemical analysis, manufacturing, and marketing. In addition, a degree in chemistry can be an excellent background for careers in many related fields, including law, medicine, business, environmental science, and other areas of science. Because of the diversity of interests of prospective Chemistry concentrators, the Department of Chemistry and Chemical Biology has designed a very flexible program of requirements which allows each student to select an area of emphasis.

Courses in organic, physical, and inorganic chemistry as well as courses in chemical biology and biochemistry are offered. A few of these courses include required laboratory work, and special laboratory courses are available to advanced students in each area. In addition, concentrators may elect to pursue an individual research project with one of the research groups of the department. Each research group consists of advanced undergraduates, graduate students, postdoctoral fellows, and a faculty member. In order to introduce students to chemical research and current topics of faculty interest, the department offers a non-credit sophomore tutorial in the spring term, a series of lectures by faculty members on their current research. Concentrators can enroll in the junior tutorial, Chemistry 98r, in which the student joins a research group under the supervision of a faculty member. Often this work is continued throughout the senior year as Chemistry 99. Here the student becomes associated with current research in a particular area either by reading and studying recommended advanced material in that area or by undertaking an individual research project. Such projects often result in publications.

All of the courses in the department are open to properly prepared undergraduates and most upper-level courses do have some undergraduates. The more advanced courses are designed to be related closely to active areas of research in chemistry. Current research activity is further stressed in the numerous seminars and colloquia in organic, physical, biophysical, and inorganic chemistry as well as in chemical biology, materials, energy and climate. Some seminars are held jointly with other departments at Harvard as well as at MIT. Most research groups have meetings and informal seminars at which topics of interest are discussed.

In addition to a balanced program of at least eight courses (32 credits) in chemistry, concentrators are able to take courses in physics, biology, biochemistry, engineering, computer science, and mathematics as part of their concentration requirements. Because of the sequence of prerequisites for chemistry courses, the department strongly recommends some work in mathematics as well as chemistry in the first year. Freshmen contemplating this program are urged to consult the Director of Undergraduate Studies of the Chemistry concentration in planning their work for the first year.

Students graduating with a degree in chemistry will gain skills in a range of areas from reading scientific papers to conducting experiments safety and ethically to learning how to identify and propose solutions to problems that are novel and important. Because research is a foundation for the study of chemistry we believe that all students in the concentration should participate in an authentic research experience by the end of their senior year.

**REQUIREMENTS**
**Basic Requirements: 12-14 courses (48-56 credits)**

1. *Required courses:* Twelve to fourteen courses required, including at least eight courses in chemistry (see item 5a):
    1. *General chemistry (two courses):* Chosen from Life and Physical Sciences A, Life Sciences 1a, Physical Sciences 1, Physical Sciences 10, and Physical Sciences 11 or satisfactory placement out of the requirement.
    2. *Inorganic chemistry (one course):* Chemistry 40, or equivalent.
    3. *Organic chemistry (two courses):* Chemistry 20 and 30, or Chemistry 17 and 27, or equivalent.
    4. *Physical chemistry (two courses):* Chosen from Chemistry 160 or equivalent; and Chemistry 60, 161, 163, or equivalent.
    5. *Advanced laboratory (one course):* Chemistry 100r, 135, 145 or 165. Laboratory work performed in Chemistry 91r, 98r, or 99r may not be counted in fulfillment of the advanced laboratory requirement.
    6. *Chemistry with a strong biological orientation (one course):* Life Sciences 1a, Life and Physical Sciences A or Chemistry 27 or 170, or Molecular and Cellular 60, 63, 64, 65 or equivalent. (Life Sciences 1a and Life and Physical Sciences A may count for both this requirement and 1a above; Chemistry 27 may count for this requirement and 1c above.)
    7. *Mathematics (at least one course):* Mathematics 21a or equivalent. (*e.g.*, Mathematics 19a, Applied Mathematics 21a, Mathematics 22a, Mathematics 23a, *etc.*). Mathematics 21b is strongly recommended.
    8. *Physics (at least two courses):* Physical Sciences 2, 3 or 12a, 12b; Applied Physics 50a, 50b; or the 15a (16), 15b, 15c sequence. Physics 15a and 15b alone do not constitute a complete overview of general physics.
    9. Additional courses as needed to meet the total of twelve in chemistry or in related fields (13 if

the student places into Mathematics 1b; 14 if the student must take Mathematics 1a.)

2. *Tutorial:*
    1. *Sophomore year:* Chemistry 91r, optional, for approved students only. A few very well prepared sophomores or first year students who are accepted for laboratory research work may register for Chemistry 91r, graded SAT/UNS only.
    2. *Junior year:* Chemistry 98r, optional, for approved students only. Graded SAT/UNS only. Each term of Chemistry 98r involves individual reading and research projects under the direction of a member of the staff. Junior concentrators are advised to consult with their advisers and to inquire at the office of the Director of Undergraduate Studies concerning the tutorial program. Students enrolling in Chemistry 98r must register the name of their research mentor at the office of the Director of Undergraduate Studies before registering for Chemistry 98r.
3. *General Examination:* None.
4. *Thesis:* Not required.
5. *Other information:*
    1. Related fields, in the present context, include departmental courses in physics and mathematics, applied physics and applied mathematics, and upper-level departmental courses in biology, biochemistry, and earth and planetary sciences that carry a chemistry prerequisite. Chemistry courses include many biochemistry courses.
    2. *Pass/Fail:* Two courses counted for concentration credit may be taken Pass/Fail. This does not include SAT/UNS grades given in Chemistry 91r, 98r, or 99r.

**Requirements for Honors Eligibility: 14-16 courses (56-64 credits)**

1. *Required courses:* 14 courses required, including at least eight courses in chemistry (see item 5a).
    1. Same as **Basic Requirements**.
    2. Same as **Basic Requirements**.
    3. Same as **Basic Requirements**.
    4. Same as **Basic Requirements**.
    5. Same as **Basic Requirements**.
    6. Same as **Basic Requirements**.
    7. Same as **Basic Requirements**.
    8. Same as **Basic Requirements**.
    9. Same as **Basic Requirements**.
    10. Two additional courses in chemistry or biochemistry, or at a suitable advanced level in a related field. Courses that meet this requirement include:
        1. MCB 60, 63. 64, 65.
        2. Other courses significantly related to chemistry may also be accepted on petition to the department.
        3. Physics 15c, 143a, 143b, 151, 153, 181.
        4. Applied Mathematics 104
        5. Mathematics 19b, Mathematics 21b
        6. Life Sciences 1b, Life Sciences 50a, Life Sciences 50b
    11. Total program must include at least four courses in chemistry numbered 100 **or** higher. Please consult with office of the Director of Undergraduate Studies for a complete list of courses offered by other departments (*e.g.*, MCB 176, MCB 178, EPS 133, ES 135, ES 164) that can be used to satisfy this requirement.
2. *Tutorials:*
    1. *Sophomore year:* Same as **Basic Requirements**.
    2. *Junior year:* Same as **Basic Requirements**.
    3. *Senior year:* Chemistry 99r, optional, for honors candidates only. Graded SAT/UNS only. Chemistry 99r involves individual reading and research projects under the direction of a faculty member. Students enrolling in Chemistry 99r must register the name of their research mentor at the office of the Director of Undergraduate Studies by the course enrollment deadline.
3. *General Examination:* None.
4. *Thesis:* Optional. Students enrolled in Chemistry 99r have the option of writing a thesis.
5. *Other information:* Same as **Basic Requirements**.

**ADVISING**

The Director of Undergraduate Studies serves as faculty adviser for all concentrators until they join research groups, usually through the Chemistry 98r tutorial, or otherwise establish a working relationship

with another faculty member who agrees to serve as co-faculty adviser. Either the Director of Undergraduate Studies or another faculty adviser may release the advising hold or advise on concentration matters. Students interested in concentrating in chemistry should discuss their plans of study with the Director of Undergraduate Studies.

For up-to-date information on advising in Chemistry, please see the Advising Programs Office website.

**HOW TO FIND OUT MORE**
Further information is available at the office of the Director of Undergraduate Studies in Chemistry, Dr. Gregg Tucci, Science Center 114 (617-496-4668), tucci@fas.harvard.edu.

**ENROLLMENT STATISTICS**
**Number of Concentrators as of December**

| Concentrators | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chemistry | 90 | 84 | 84 | 78 | 92 | 91 | 91 | 95 | 80 | 65 | 57 | 67 |
| Chemistry + another field | 3 | 1 | 0 | 1 | 2 | 2 | 4 | 4 | 5 | 8 | 8 | 15 |
| Another field + Chemistry | 1 | 0 | 0 | 1 | 0 | 2 | 1 | 1 | 1 | 1 | 0 | 0 |

# Chemistry and Physics

**Professor Howard Georgi, Director of Undergraduate Studies**
**Dr. David Morin, Co-Director of Undergraduate Studies**

Physics and Chemistry are intellectual neighbors, sharing a large and somewhat arbitrary boundary. Scientists in this exciting boundary area study many of the same systems. They use many of the same experimental and theoretical tools. The concentration in Chemistry and Physics is supervised by a committee comprised of members of the Departments of Physics and of Chemistry and Chemical Biology and is administered through the office of the Director of Undergraduate Studies. As the name suggests, the concentration has been established to serve students wishing to explore this boundary who need to develop a strong foundation in both physics and chemistry. Because of the need to cover a wide range of material in considerable depth, only an honors-eligible program is available in this concentration.

The requirements of the Chemistry and Physics concentration are designed to provide a solid foundation for further study in either or both of these two closely related sciences. Concentrators have gone on to graduate work and careers in chemistry, physics, and other quantitative fields. The concentration is also often chosen by students whose career goals lie in medicine. In addition, the intellectual disciplines involved provide a suitable background for careers in many different professions.

Because the requirements of the concentration lie between those of Chemistry and of Physics, it is possible that a given set of courses could satisfy the requirements of one of those concentrations as well as those of the concentration in Chemistry and Physics. By the same token, a transfer to or from one of these concentrations, even as late as the junior year, normally causes little difficulty.

The concentration is structured to assure that all concentrators are introduced to the core subjects of chemistry (organic, inorganic, and physical); of physics (mechanics, electromagnetism, and quantum theory); and of mathematics. Beyond this core, students take additional courses in chemistry, physics, or related sciences, according to their personal interests and objectives.

Tutorial or individual study and research are optional and may be undertaken within the framework of Physics 90r or 91r, or of Chemistry 91r, 98r, or 99r.

**REQUIREMENTS**
**13courses (52 credits)**

1. *Required courses*:
    1. *General Chemistry*: Life Sciences 1a and Physical Sciences 1, or Physical Sciences 10 and 11, or satisfactory placement out of the requirement.
    2. *Inorganic Chemistry*: Chemistry 40 or 158, or equivalent.
    3. *Organic Chemistry*: Chemistry 20 and 30, or Chemistry 17 and 27. Chemistry 20 and 30 are strongly recommended, but Chemistry 17 and 27 may be a preferred alternative, particularly for students preparing for medical school.
    4. *Physical Chemistry or Statistical Mechanics*: Chemistry 60 or one of Chemistry 161, Physics 181, or Engineering Sciences 181. One of the statistical mechanics courses is strongly recommended.
    5. *Mechanics, Electromagnetism, and Waves*: Physics 15a (or Physics 16 or 19), 15b, and 15c. Students may also take Physical Sciences 12a/b or Applied Physics 50a/b in place of Physics 15a/b. These students should contact the Director or Co-Director of Undergraduate Studies, who will work with them to develop a coherent program.
    6. *Quantum Mechanics*: Physics 143a or Chemistry 160.
    7. *Mathematics*: Two courses at the level of Mathematics or Applied Mathematics 21a, 21b, or above. While not required, taking one or more additional mathematics courses is strongly recommended. Students should consider especially Applied Mathematics 104 or Mathematics 113; Applied Mathematics 105 or Mathematics 110; Applied Mathematics 111; Applied Mathematics 115; Statistics 110. Students planning to go into research should consider taking a course in computer science and/or numerical analysis.
    8. Additional courses from the list below, to complete the requirement of 13 courses. It is strongly recommended that one course be a laboratory course. In all cases, the student must take at least four physics courses and four chemistry courses.
        1. A course of independent research from the following: Chemistry 91r, 98r, 99r, or Physics 90r.
        2. Any 100- or 200-level chemistry course.
        3. Any 100- or 200-level physics or applied physics course (see 5h).
        4. Any 100- or 200-level math or applied math course.
        5. Any intermediate- or advanced-level course in a science, engineering sciences, or computer science with significant direct application to chemistry or physics. These courses should be approved in advance by the Director or Co-Director of Undergraduate Studies. (No approval is needed for the “related” or “counting as physics” courses listed in the requirements for the Physics concentration.) To fulfill particular needs, a concentrator, with the adviser’s consent, may petition the committee to use other intermediate- or advanced-level science courses for this requirement.
        6. One course from Mathematics 1a and 1b, Life Sciences 1a, and Physical Sciences 1 may count toward the requirement of 13 courses.
2. *Tutorials*: Optional. Admission to tutorials requires prior approval by the Director of Undergraduate Studies of the Department of Chemistry and Chemical Biology.
    1. *Junior year*: Chemistry 98r.
    2. *Senior year*: Chemistry 99r.
3. *Thesis*: Optional.
4. *General Examination*: None.
5. *Other Information*:
    1. Satisfactory grades (C- or better) are required in Physics 15a, 15b, and 15c (or higher-level substitutions).
    2. *Pass/Fail*: Two courses counted for concentration may be taken Pass/Fail, but not Physics 15a, 15b, 15c, 16, or 19.
    3. *Substitutions*: Students can substitute a more advanced course for one or more of the required elementary courses on the same topics, provided they have the written permission of the Director or Co-Director of Undergraduate Studies. However, the total number of concentration courses taken during the student’s college career (including study abroad or transfer credits) must be at least 13. Students who substitute more advanced courses for Physics 15b and/or 15c must complete the lab component of these courses, on a pass/fail basis. See the Co-Director of Undergraduate Studies for further information.
    4. *Teaching*: Students who are interested in receiving eligibility for the certification needed to teach both physics and chemistry in public schools are invited to look at Degree in Physics with Teacher Certification in both Physics and Chemistry under the Physics concentration. Completing the Chemistry and Physics concentration with eligibility for teacher certification in

both physics and chemistry requires taking the UTEP program, in addition to the required courses listed in items 1a–h.

5. *Individual Study and Research courses*: Physics 90r/91r and Chemistry 91r/98r/99r are optional.
6. Applied physics and engineering science courses listed in the requirements for the Physics concentration as "counting as physics" for Physics concentrators are also counted as physics courses in the Chemistry and Physics concentration.

**ADVISING**

Students interested in concentrating in Chemistry and Physics should discuss their Plans of Study with the Co-Director of Undergraduate Studies. When Plans of Study are approved, each undergraduate who elects to concentrate in the field is assigned a faculty adviser from either the Physics or Chemistry department. If students do not request a change in adviser, they have the same adviser until they graduate. It is expected that students will discuss their programs and review their progress with faculty advisers at the beginning of each term. Students are told to seek advice at any time and can see their advisers at regularly scheduled office hours or by making an appointment. Students may also seek advice from the Director or Co-Director of Undergraduate Studies or Chair of the Chemistry and Physics Committee at any time.

For up-to-date information on advising in Chemistry and Physics, please see the Advising Programs Office website.

**RESOURCES**

The resources and facilities available to this concentration are essentially those of the Chemistry and Physics departments combined. Hence the descriptions of those concentrations should be consulted for further information.

**HOW TO FIND OUT MORE**

The pamphlet, *The SPS Guide to Physics and Related Field*s, available from the Co-Director of Undergraduate Studies in Lyman 238, provides useful information about the opportunities for the study of physics and physics-related areas at Harvard. Much of this information is also relevant to the concentration in Chemistry and Physics.

Advice and personal consultation concerning the concentration can be obtained from the Director of Undergraduate Studies: Professor Howard Georgi, Jefferson 456, georgi@physics.harvard.edu, 617-496-8293; and the Co-Director of Undergraduate Studies, Dr. David Morin, Lyman Laboratory 238 , morin@physics.harvard.edu, 617-495-3257. For office hours, check the website. Students should also seek advice from the Director of Undergraduate Studies in Chemistry: Dr. Gregg Tucci, tucci@fas.harvard.edu.

Official acceptance into the concentration program is made only through the office of the Co-Director of Undergraduate Studies, who must approve the Plan of Study.

**ENROLLMENT STATISTICS**

**Number of Concentrators as of December**

| Concentrators | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chemistry and Physics | 36 | 27 | 31 | 37 | 39 | 31 | 23 | 29 | 27 | 37 | 27 | 30 |
| Chemistry and Physics + another field | 4 | 5 | 5 | 5 | 1 | 7 | 4 | 5 | 1 | 2 | 3 | 6 |
| Another field + Chemistry and Physics | 1 | 2 | 2 | 2 | 4 | 4 | 1 | 2 | 1 | 1 | 0 | 1 |

# Classics

**Professor Jared Hudson, Director of Undergraduate Studies**

Classics as an intellectual discipline embraces the study of ancient Greece and Rome, two civilizations whose legacy has played a major role in shaping our modern world. The Greeks and Romans produced literature and philosophy of enduring power and impact; they created art and architecture of unsurpassed grace and beauty; they made discoveries in science and math that anticipate principles and theorems re-discovered in the Renaissance; they grappled with problems of economics and governance that still challenge us today. In short, the Greco-Roman world provides the modern student with a laboratory of the human condition. Hence, the Department of the Classics encourages its students to explore the whole range of Greco-Roman civilization from the Bronze Age through Byzantium and medieval Europe to Modern Greece.

To study Classics at Harvard, no prior knowledge of an ancient language is required. Students may either start Greek and/or Latin from scratch, or build upon prior knowledge by taking more advanced courses. Two concentration options are offered within the department: Classical Languages and Literatures, for students wishing to emphasize the study of Greek and Latin literature in the original languages; and Classical Civilizations, for those primarily interested in exploring Greco-Roman culture through an archaeological, historical, or philosophical lens. Classics is essentially inter-disciplinary, combining the study of language, linguistics, and literature; archaeology, art, and architecture; history; philosophy, science, and medicine; and myth and religion. Hence, in addition to its dedicated Joint Concentration in Ancient History (Greek and Roman), which is offered in conjunction with History, the department welcomes joint concentrators combining Classics with a large number of allied fields.

As well as requirements in Greek and/or Latin, all concentrators take at least one of the department's foundational courses in Greek culture & civilization and Roman culture & civilization (Classical Studies 97a and 97b); in the junior year they choose one of a suite of small-group tutorials in advanced research methods (Classics 98); and in their senior year, all Classics concentrators have the option of writing a thesis under faculty supervision (Classics 99, mandatory for joint concentrators). Beyond these requirements, students have a wide range of courses to choose from, including courses in translation. Furthermore, courses from related departments are regularly cross-listed with Classics, so that students can craft the concentration to accommodate their individual interests.

Classics concentrators have at their disposal the resources of the Herbert Weir Smyth Classical Library, and they are encouraged to conduct primary research on ancient artefacts, coins, manuscripts, and papyri in the unparalleled collections of Houghton Library and the Harvard Art Museums. During the summer, students are given the chance to complement their experience in the classroom by undertaking an internship at one of Harvard's classical institutes in Washington DC (the Center for Hellenic Studies and Dumbarton Oaks); participating in an archaeological dig; learning to speak Latin in Rome or Greek in Athens; taking summer courses in Italy or Greece; or traveling to Europe (or elsewhere) to learn one of the modern languages that are fundamental for classical scholarship—typically French, German, or Italian.

By mastering Greek and/or Latin and acquiring the skills necessary to analyze and interpret the remains of Greek and Roman culture, students learn to make sense of material that is both dauntingly complex and disconcertingly fragmentary. The effort of trying to understand the thoughts and actions of people who are separated from us by a gulf of two millennia teaches our students to test their assumptions in every human situation. The challenge of finding out about an aspect of Greco-Roman civilization for which no substantial evidence appears to survive develops resourcefulness and flexibility—research skills that can be transferred to any walk of life. Concentrators in Classics learn to think rigorously and to express themselves precisely in both speech and writing. They go on to excel in fields as varied as business, diplomacy, education, finance, journalism, law, and medicine. In short, a training in Classics is applicable to everything.

**REQUIREMENTS**
**Classical Languages and Literatures**
**Basic requirements: 12 courses (48 credits)**

1. Two courses providing a broad introduction to Classical civilization, normally Classical Studies 97a and 97b.
2. Six courses in Greek and/or Latin, at least two of which must be numbered 100 or above (H and K are considered 100-level), and at least one of which must be selected from the following list: Greek 112a, Greek 112b, Latin 112a, Latin 112b (or equivalent in the case of Byzantine/Modern Greek

and Medieval Latin). Note: Introductory language courses are intended to be taken sequentially. Students may not earn concentration credit for completion of a course sequentially prior to one in which they have already earned a passing grade.
3. One semester of Classics 98, a small-group tutorial, is required of all concentrators in the junior year. The tutorial emphasizes the development of research skills through a close examination of a topic in Greek and Roman literature and/or Greco-Roman civilization.
4. Three additional courses from among those listed under Classics in the course search in courses.my.harvard.edu, including cross-listed courses and either Humanities 10a or Humanities 10b. Other courses may be counted with approval of the Director of Undergraduate Studies.
5. *Note*: Two courses counted for concentration may be taken Pass/Fail or, in the case of approved Freshman Seminars, SAT/UNS. Classics 98 must be taken for a letter grade.
6. *Honors*: Students wishing to be considered for honors must fulfill the basic requirements as specified above, as well as the following:
    1. *-Either-*
        1. A senior thesis, together with two semesters of the senior tutorial, Classics 99. The thesis must be submitted to the department office on or before the Friday before the spring recess. The length of the thesis should be decided upon by the student and the thesis adviser but should not ordinarily exceed 60 pages of text.
        2. *Or-*
            1. Two additional courses in Greek or Latin, both of which must normally be letter-graded with a grade of A- or better:
                1. Candidates for High Honors: Two of the following courses: Latin H, K; Greek H, K.
                2. Candidates for Highest Honors: Both Latin K and Greek K.
                3. Candidates for Honors: Any 100-level course in Greek or Latin, plus one of the following courses: Latin H, K; Greek H, K.

Note: if a student pursues both routes to Honors, the Department's honors recommendation shall be based upon the higher result in the eligible category.

**Joint concentration: Classical Languages and Literatures and Allied Field**
**Basic requirements: 7 letter-graded courses (28 credits) in Classics**

1. Classical Studies 97a or 97b.
2. Classics 98.
3. Four courses in Greek and/or Latin, at least two of which must be at the 100 level or above (H and K are considered 100-level), and at least one of which must be selected from the following list: Greek 112a, Greek 112b, Latin 112a, Latin 112b (or equivalent in the case of Byzantine/Modern Greek and Medieval Latin). Note: Introductory language courses are intended to be taken sequentially. Students may not earn concentration credit for completion of a course sequentially prior to one in which they have already earned a passing grade.
4. One additional course from among those listed under Classics in the course search in courses.my.harvard.edu, including cross-listed courses and either Humanities 10a or Humanities 10b. Other courses may be counted with approval of the Director of Undergraduate Studies.
5. Additional coursework as required by the allied field.
6. *Honors*: Thesis required. Two semesters of either Classics 99 or the equivalent in the allied field, as appropriate.

**Classical Civilizations**
**Basic requirements: 12 courses (48 credits)**

1. Two courses providing a broad introduction to Classical civilization, normally Classical Studies 97a and 97b.
2. Four courses in Greek and/or Latin. Note: Introductory language courses are intended to be taken sequentially. Students may not earn concentration credit for completion of a course sequentially prior to one in which they have already earned a passing grade.
3. One semester of Classics 98, a small-group tutorial, is required of all concentrators in the junior year. The tutorial emphasizes the development of research skills through a close examination of a topic in Greek and Roman literature and/or Greco-Roman civilization.
4. Classical Studies 112 Regional Study, a multi-disciplinary and problem-based in-depth survey of a region of the ancient Mediterranean world, to be taken at any stage in the Concentration, provided

that both 97a and 97b have been completed or the second of these is being taken concurrently.
5. Four additional courses from among those listed under Classics in the course search in courses.my.harvard.edu, including cross-listed courses and either Humanities 10a or Humanities 10b. Other courses may be counted with approval of the Director of Undergraduate Studies.
6. *Note*: Two courses counted for concentration may be taken Pass/Fail or, in the case of approved Freshman Seminars, SAT/UNS. Classics 98 must be taken for a letter grade.
7. *Honors*: In addition to the basic requirements set out above, all concentrators in Classical Civilizations who wish to be considered for honors must write a senior thesis by completing two semesters of the senior tutorial, Classics 99. The thesis must be submitted to the department office on or before the Friday before the spring recess. The length of the thesis should be decided upon by the student and the thesis adviser but should not ordinarily exceed 60 pages of text.

**Joint concentration: Classical Civilizations and Allied Field**
**Basic requirements: Seven letter-graded courses (28 credits) in Classics**

1. Classical Studies 97a or 97b.
2. Classics 98.
3. Two courses in Greek and/or Latin. Note: Introductory language courses are intended to be taken sequentially. Students may not earn concentration credit for completion of a course sequentially prior to one in which they have already earned a passing grade.
4. Classical Studies 112 Regional Study, a multi-disciplinary and problem-based in-depth survey of a region of the ancient Mediterranean world, to be taken at any stage in the Concentration, provided either 97a or 97b has been completed or is being taken concurrently.
5. Two additional courses from among those listed under Classics in the course search in courses.my.harvard.edu, including cross-listed courses and either Humanities 10a or Humanities 10b. Other courses may be counted with approval of the Director of Undergraduate Studies.
6. Additional coursework as required by the allied field.
7. *Honors*: Thesis required. Two semesters of either Classics 99 or the equivalent in the allied field, as appropriate.

**Joint Concentration in Ancient History (Greek and Roman)**
**Basic requirements: Fourteen courses (56 credits)**

1. *Classical Language Courses (4 courses)*: Four courses of study of one or two classical languages.
2. *Additional Coursework (8 courses)*:
    1. History 97.
    2. Classical Studies 97a or 97b.
    3. fHistory 97 is offered in the spring term only; if combining with Classical Studies 97b (on Rome), also offered in the spring, students may choose either to take both during their sophomore spring, or to take one in the sophomore spring and the other in the junior spring.
    4. Classics 98. Must be completed by the end of the junior spring, in preparation for the senior thesis.
    5. Classical Studies 112.
    6. One non-Western History course.
    7. One modern History course.
    8. Two additional electives within Ancient History.
    9. *Additional note*: One of the four history courses should be a seminar that results in a research paper of at least 20 pages and involving primary source research and that is completed before the end of the junior year.
3. *Senior Thesis (2 courses)*: either History 99 or Classics 99. Students may select either seminar.
4. *Please also note the following information:*
    1. Students who complete the thesis will be eligible for honors; the department in which the student chooses to take the senior tutorial will be responsible for making the final determination of honors.
    2. Two types of courses count toward Ancient History (Greek and Roman) concentration requirements:
        1. Courses listed in the course catalog's "History" section and "Classics" section, including cross-listed courses.
        2. Courses taught in the General Education and/or Freshman Seminar programs by full members of the History or Classics Department faculty. Students wishing to count such courses toward their concentration requirements should request approval from the

relevant Director of Undergraduate Studies. Students may also apply to do an independent study, History 91r or Classics 93r, with a member of the relevant Department; History 91r/Classics 93r can be used to fulfill one of the elective course requirements.

**ADVISING**

At the beginning of each semester concentrators meet with the Director of Undergraduate Studies to discuss their Plans of Study and their progress through the concentration. In addition, junior and senior members of the department are available throughout the year to offer advice on particular academic matters as the need arises.

For up-to-date information on advising in Classics, please see the Advising Programs Office website.

**RESOURCES**

The Smyth Classical Library, on the top floor of Widener Library, is open to all concentrators in the department. It contains an extensive and up-to-date collection of Greek and Latin authors, principal commentaries, works of reference, corpora of inscriptions, and major books on classical archaeology, history, literature, and philosophy. The library is locked at all times because there is no regular attendant. Key-card access will be granted to any concentrator upon request. Items from the McDaniel collection of antiquities illustrating Greek and Roman life, together with an extensive collection of ancient coins, are housed in the Harvard Art Museums. The antiquities are available for study by qualified students.

**HOW TO FIND OUT MORE**

For further information about the concentration, contact the Director of Undergraduate Studies, Professor Jared M. Hudson (classicsDUS@fas.harvard.edu, 617-495-9625).

**ENROLLMENT STATISTICS**
**Number of Concentrators as of December**

| Concentrators | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Classics | 34 | 41 | 42 | 36 | 39 | 38 | 37 | 24 | 26 | 25 | 23 | 24 |
| Classics + another field | 4 | 4 | 4 | 4 | 1 | 6 | 5 | 6 | 9 | 7 | 11 | 10 |
| Another field + Classics | 1 | 0 | 2 | 3 | 5 | 7 | 6 | 4 | 5 | 9 | 9 | 11 |

# Comparative Literature

**Dr. Sandra Naddaff, Director of Undergraduate Studies**

The undergraduate program in Comparative Literature prepares students to play an active and creative role in today's globalized world by exploring literature and culture across languages and national borders. Working in more than one language, our students investigate the inter-connections among literatures, cultures, and media to explore the human experience in a comparative and interdisciplinary context.

The flexible nature of the concentration allows students to develop a program of study both within and beyond the Humanities based on their particular languages and interests. Some students craft a curriculum in Literature and the Arts, linking the study of literature with film, music, theater, digital media, or creative writing. Others design a program that connects literary study to contemporary concerns and disciplines beyond the Humanities, focusing their work on the relationship between Literature and Medicine, or Literature and Law, or Literature and Ethics, for example. Still other students find in the study of Comparative Literature a place for the comparative study of multiple literatures, World Literature, and translation, or the examination of aesthetics, philosophy, and literary and cultural theory. Our concentrators work across many languages—Hindi, French, Spanish, English, Chinese, Hebrew,

Italian, Latin, Arabic, Swahili—to name but a few. We welcome work in any foreign language in which a student has an interest. In cases where a student does not have the necessary linguistic competence to undertake literary study, we are happy to help make arrangements towards fluency.

In consultation with the Director of Undergraduate Studies and the student's academic adviser, undergraduate concentrators develop an individually tailored and carefully structured program of study that brings together their particular interests and languages and allows them to take courses in a variety of departments across the Humanities. Central to each student's curriculum is the tutorial program. The one-semester sophomore tutorial seminar introduces students to various disciplinary methodologies and forms of literary and cultural analysis. Junior tutorial offers students the rare opportunity to design their own reading course in which they work one on one with a tutor and ultimately develop a special field of study. Students may, however, opt out of junior tutorial in order to take additional courses in a non-English language or in Comparative Literature. (See #2 in Tutorials below.) Senior tutorial is again an individual course of study largely devoted to the research and writing of the senior thesis, which is required of all students. All tutorials are reading and writing intensive, and form the core around which a student develops a larger program of study. For more information about students' special fields and senior thesis projects, please see the "Undergraduate Concentration" link on our website, www.complit.fas.harvard.edu.

Students with degrees in Comparative Literature develop habits of mind that serve them well in any number of professional endeavors. The ability to write well, to read critically, to argue analytically, and to speak eloquently, translates fluently to a variety of fields. Our graduates include doctors, lawyers, literary scholars, cultural critics, investment bankers, actors, novelists, consultants, and journalists among many others. For a fuller list of our alumni, please consult the "Lit alumni" link on our website, www.complit.fas.harvard.edu.

In order to help students determine whether they can meet their academic and intellectual goals in our department, we ask interested students to apply to the concentration during the fall of the sophomore year, although later applications will also be considered whenever possible. Application includes submitting a brief statement of interest and essay, as well as a conversation with two members of the department.

**REQUIREMENTS**
**14 courses (56 credits)**

1. *Required Courses*:
    1. Comparative Literature 97; Comparative Literature 98a and 98b or tutorial alternative. See 2B below; Comparative Literature 99a and 99b (see item 2, Tutorials).
    2. Three courses from among the courses listed under Comparative Literature in the course search in courses.my.harvard.edu, including those courses cross-listed under Comparative Literature. Each of these courses must be passed with a grade of B– or above.
    3. Three courses in one or more non-English literatures, each passed with a grade of B– or above. Note: A student may petition the Director of Undergraduate Studies to take one non-English course at the advanced language level for concentration credit in this category.
    4. Three courses drawn from a variety of related departments. These may include, but are not limited to, additional courses in Comparative Literature; English literature; non-English or classical literatures or folklore and mythology (including additional courses in the literature chosen under 1c above); philosophy; visual and environmental studies; studies of women, gender, and sexuality; linguistics. Students should consult the Director of Undergraduate Studies to determine whether a specific course will count for concentration credit in this category.
2. *Tutorials*:
    1. *Sophomore year*: Comparative Literature 97. A grade of B- or above is required.
    2. *Junior year*: Comparative Literature 98a and 98b. Graded SAT/UNS. A grade of SAT in both semesters is required in order to continue on to Comparative Literature 99a and 99b. Alternatively, Junior concentrators in Comparative Literature can petition to substitute one or two courses in place of the junior tutorial. These courses must be from the Comparative Literature departmental listings or courses that support non-English language learning at any level. Students must petition the Director of Undergraduate Studies by the end of the second semester of sophomore year.
    3. *Senior year*: Comparative Literature 99a and 99b (the writing of the senior thesis). Graded

SAT/UNS. In order for a student to receive a grade of SAT for the first semester of senior tutorial, one chapter of the thesis must be submitted by the end of the semester in which the thesis work is begun.

3. A junior essay of 20-25 pages (5,000-6,250 words) is required of all students enrolled in the junior year tutorial. Students who do not enroll in junior tutorial must, in consultation with the Director of Undergraduate Studies, make arrangements to complete a junior essay.
4. A senior thesis of 45-70 pages (11,250-17,500 words) is required of all concentrators in the senior year.
5. *General Examination*: A 75-minute oral examination at the end of the senior year. This exam will include a thesis defense, as well as an intellectual autobiography. The examination committee will consist of three members, and will ideally include the student's junior tutor and one reader of the senior thesis.
6. *Study Abroad*: Comparative Literature encourages study abroad for one semester of the junior year. Students who study abroad take only one term of junior tutorial, although they must still complete the junior essay and 14 total concentration courses.

**JOINT CONCENTRATION**

It is possible to pursue a joint concentration with Comparative Literature as either a primary or allied field. Please make an appointment with the Director of Undergraduate Studies to discuss specific requirements.

**ADVISING**

Each Comparative Literature concentrator is assigned a tutor who also functions as the student's adviser. In the sophomore year, this tutor is assigned by the Director of Undergraduate Studies, but in following years a student may either request a tutor from among the faculty members of the Department of Comparative Literature and the Tutorial Board; or the student will be assigned a tutor (generally a member of the Tutorial Board) by the Director of Undergraduate Studies according to the student's interests. Generally, this tutor changes from year to year as the student's program and interests change. In certain cases, however, a student may request the same tutor for more than one year.

The department offers a variety of courses that might be of interest to freshmen and first-semester sophomores, but it has no specific course that is a pre-requisite. Students who are interested in the program might wish to take any of the 100-level courses listed in Comparative Literature in the course search in courses.my.harvard.edu. Students interested in Comparative Literature might also wish to take a language course in their language of choice, if they wish to improve their non-English language competency.

For up-to-date information on advising in Comparative Literature, please see the Advising Programs Office website.

**HOW TO FIND OUT MORE**

Freshmen interested in finding out more about Comparative Literature should contact Dr. Sandra Naddaff by email (snaddaff@fas.harvard.edu) or should make an appointment to see her during office hours by calling 617-495-4186.

For general information contact Dr. Sandra Naddaff, Director of Undergraduate Studies; or Ms. Isaure Mignotte, Comparative Literature Program Coordinator, at Dana Palmer House, 617-495-4186.

**ENROLLMENT STATISTICS**
**Number of Concentrators as of December**

| Concentrators | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Comparative Literature | 48 | 38 | 41 | 40 | 39 | 33 | 26 | 27 | 16 | 22 | 16 | 20 |
| Comparative Literature + | 1 | 1 | 2 | 1 | 2 | 5 | 4 | 2 | 5 | 5 | 7 | 10 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| another field | | | | | | | | | | | | |
| Another field + Comparative Literature | 2 | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 3 | 5 | 6 | 8 |

## Computer Science

**Professor Boaz Barak, co-Director of Undergraduate Studies**
**Professor Stephen Chong, co-Director of Undergraduate Studies**
**Dr. Adam Hesterberg, Assistant Director of Undergraduate Studies**

Computer science is a dynamic, versatile field, full of open problems and opportunities for creative invention. Computer science is not just about tools and technology. Whether it is swarms of insects, elementary particles, rational agents in a market, or the neurons in the brain, the computational viewpoint has proven an extremely fruitful way to understand natural, social, and engineered systems. Correspondingly, the Computer Science concentration has strong ties not just to engineering, but also economics, law, biology, physics, statistics, mathematics, and more.

The concentration in Computer Science is designed to teach students skills they will use immediately and ideas they will exploit in the future in ways unimaginable today. Because information technology affects every aspect of society, graduates with computer science degrees have open to them an enormous variety of careers—engineering, teaching, medicine, law, basic science, entertainment, management, and countless others.

The Computer Science concentration has the following learning objectives. Our graduates should be able to:

1. Design and code correct solutions to problems.
2. Design a system, identifying trade-offs on dimensions such as performance, usability, robustness, security, and durability.
3. Design an algorithm to solve a problem. Reason about the algorithm's properties—correctness, specifications, time complexity.
4. Starting from an informal, English language description of a problem, give a fully formal description of it, and prove something about the behavior of the system.
5. Compose a large data set from networked sources, draw some inferences about it, and convey those conclusions effectively to others visually and verbally.
6. Be able to explain to a novice about how computers work, from the hardware to a user-visible application.
7. Explain how a solution designed for a specific domain can be applied to another domain.
8. Explain the appropriateness of alternative system designs to the social context in which the system would be used.
9. When presented with a technical solution to a problem, formulate a set of questions that probe the solution for its soundness.
10. Conduct an "experiment" to study an algorithm or system, ideally one designed by someone else.
11. Pick up and work with new environments (languages, APIs, OS-es, simulators, etc.) independently and efficiently.
12. After listening to a CS colloquium talk, objectively analyze and critique the work.
13. Apply computational approaches in the natural sciences, the social sciences, and the humanities.
14. Decompose a large problem into a collection of manageable, interrelated tasks.

In addition to these technical objectives, we identified five softer objectives. We hope our graduates will be able to:

1. Present ideas clearly and forcefully, both orally and in writing.
2. Solve problems cooperatively and in an ethically principled way.
3. Apply their strengths to areas of known weakness and discomfort.
4. Work productively, responsibly, and effectively within a group.
5. Adapt to changes in the technological landscape.

**REQUIREMENTS**

There are four types of concentrations in Computer Science: Basic Concentration, Honors Concentration, Joint Concentration, and the Mind, Brain, Behavior track of the Computer Science concentration.

The number of credits required for each degree depends on the student's mathematics placement. The ranges given here depend on whether the student starts mathematics at the Mathematics 1a, Mathematics 1b, or Mathematics 21a level. (With good planning it is also possible to earn a Computer Science degree starting with Mathematics Ma.) For example, a basic concentration requires 48 credits (12 courses), of which Mathematics 1a and/or Mathematics 1b can be waived, depending on placement, to reduce the number to 44 or 40 credits (11 or 10 courses).

In all of the requirements below, a student may replace a course with another course covering the same material at a more advanced level. For example, Mathematics 21b can be replaced with Mathematics 25a. For information on which courses are considered acceptable replacement, see our website or ask the Directors of Undergraduate Studies.

No student may reduce concentration requirements by omitting any other course other than Mathematics 1a or Mathematics 1b: any other required course not taken must be replaced by a similar course at a more advanced level.

The four concentration options share the following common requirement structure.

- Basic mathematics
- Basic software
- Theory
- Technical electives (including the breadth requirement)

**Basic Requirements: 10-12 courses (40-48 credits)**

1. *Required courses*:
    1. *Basic Mathematics (2-4 courses)*:
        1. Mathematics 1a and Mathematics 1b, if needed as preparation.
        2. *Linear algebra*: Any one of Mathematics 21b, Applied Mathematics 22a, Applied Mathematics 21b, Mathematics 23a, Mathematics 25a, or Mathematics 55a, or a more advanced linear algebra course.
        3. *Probability/statistics or Multivariable calculus*: One of the following. Either Statistics 110 or a more advanced probability or statistics course, or one of Mathematics 21a, Applied Mathematics 22b, Applied Mathematics 21a, Mathematics 23b, Mathematics 23c, Mathematics 25b, Mathematics 55b, or a more advanced multivariable calculus or analysis course.
        4. *Note*: Please contact the Directors of Undergraduate Studies for more information about the Mathematics 22 series.
        5. *Note*: Students that take all three of a linear algebra course, multivariate calculus course and probability/statistics course can count the probability/statistics course as a technical elective (see below).
    2. *Basic Software (2 courses)*: Two out of the following three courses: Computer Science 50, Computer Science 51, and Computer Science 61. Students who take all three courses may count one of Computer Science 51 or Computer Science 61 as a technical elective (see below). Ordinarily, CS 50 will not count for concentration credit after more advanced coursework.
    3. *Theory (2 courses)*: Computer Science 121, plus any one additional theory course, including Computer Science courses numbered in the 120s and 220s, and Applied Mathematics 107. The recommended way to satisfy the theory requirement is to take both Computer Science 121 and Computer Science 124.
    4. *Technical Electives (4 courses)*: Courses may be drawn from the following list:
        1. Computer Science courses numbered greater than 50 (including 91r). A student who takes all three of Computer Science 50, Computer Science 51, and Computer Science 61 may count either Computer Science 51 or Computer Science 61 as a technical elective.
        2. Statistics 110 and 195; Computer Science 20; Mathematics 154; Applied Mathematics

106, 107, 120, and 121; at most one of Engineering Sciences 50, 52, or 54; Engineering Sciences 153 or Physics 123; Engineering Sciences 170 and 256; Applied Computation 221.

3. *Many—but not all—MIT "Course 6" courses can be used as technical electives. Consult the DUS before enrolling.*

5. *Breadth Requirement*: In order to ensure breadth in the program two of the four technical electives must be Computer Science courses from different course groupings from the following lists, as identified by the penultimate digit of the course number:
   - *Note*: Computer Science courses with penultimate digit 0, 1, 2, and 9 are valid technical electives if not used to satisfy other concentration requirements, but do not contribute to the breadth requirement
   - 3: Economics and Computation (any course of the form CS13x or CS23x)
   - 4: Hardware and Networks (any course of the form CS14x or of the form CS24x. Physics 123 and Engineering Sciences 153 count in this group as well).
   - 5: Programming Languages (CS51 if counted as a technical elective, or any other course of the form CS15x or CS25x).
   - 6: Systems (CS61 if counted as a technical elective, or any other course of the form CS16x or CS26x)
   - 7: Graphics, Visualization, and User Interfaces (any course of the form CS17x or CS27x).
   - 8: Artificial Intelligence (any course of the form CS18x or CS28x).

2. *Tutorial*: Optional. Available as Computer Science 91r. This course is repeatable, but may be taken at most twice for academic credit, and only one semester of Computer Science 91r may be counted toward concentration requirements. Students wishing to enroll in Computer Science 91r must file a project proposal to be signed by the student and the faculty supervisor and approved by the Directors of Undergraduate Studies. The project proposal form can be found on the Computer Science website.
3. *Thesis*: None.
4. *General Examination*: None
5. *Other Information*:
   1. *Approved courses*: With the approval of the Directors of Undergraduate Studies, courses other than those listed above may be used to satisfy requirements. If a course is cross-listed with another department it meets the same requirements for the concentration as the Computer Science numbered course. To satisfy any of the requirements 1A, 1B, or 1C, a substituted course must be in the same area of mathematics or computer science but more advanced than the stipulated course. Students must secure advance approval for course substitutions by filing a Plan of Study to be approved by the Directors of Undergraduate Studies. The Plan of Study form and a description of the process to submit the form can be found on the Computer Science website.
   2. *Pass/Fail and Sat/Unsat*: None of the courses used to satisfy concentration requirements may be taken Pass/Fail. Computer Science 50 will count for concentration credit if it is taken for a grade of SAT.
   3. *Credit for prior work*: Except for Math 1ab, there is no reduction in concentration requirements for prior work. As noted in 1.2 above, students who skip CS50 must take both CS51 and CS61. Rarely, students wish, on the basis of prior experience, to skip CS51 or CS61 or courses such as Math 21a or Math 21b. They may be allowed to do so, with the prior approval of the Directors of Undergraduate Studies, if they substitute a more advanced course of the same kind: for example, CS152 in place of CS51, CS161 in place of CS61, Math 112 or Applied Math 105 in place of Math 21a, and Math 121 or Applied Math 120 in place of Math 21b.
   4. *Plans of study*: Concentrators must file a Plan of Study showing how they intend to satisfy these degree requirements, and keep their plan of study up to date until their program is complete. If the plan is acceptable, the student will be notified that it has been approved. To petition for an exception to any rule, the student should file a new plan of study and notify the Directors of Undergraduate Studies of the rationale for any exceptional conditions. Approval of a plan of study is the student's guarantee that a given set of courses will satisfy degree requirements. The Plan of Study form and a description of the process to submit the form can be found on the Computer Science website.

**Requirements for Honors Eligibility: 12-14 courses (48-56 credits)**

1. *Required courses:*
    1. *Basic Mathematics (2-4 courses)*: Same as **Basic Requirements**.
    2. *Basic Software (2 courses)*: Same as **Basic Requirements**.
    3. *Theory (2 courses)*: Same as **Basic Requirements**.
    4. *Technical Electives (6 courses)*: 6 courses from same list as **Basic Requirements**.
    5. *Breadth Requirement*: For the honors track, three of the six technical electives must be Computer Science courses from different course groupings, as identified by the penultimate digit of the course number (see **Basic Requirements** for list of areas and restrictions).
2. *Tutorial*: Same as **Basic Requirements**.
3. *Thesis*: Optional but encouraged. See honors requirements on the Computer Science website. Students writing theses are often enrolled in Computer Science 91r. This course is repeatable, but may be taken at most twice for academic credit, and only one semester of Computer Science 91r may be counted toward concentration requirements. Students wishing to enroll in Computer Science 91r must file a project proposal to be signed by the student and the faculty supervisor and approved by the Directors of Undergraduate Studies. The project proposal form can be found on the Computer Science website.
4. *General Examination*: None.
5. *Other information:*
    1. Approved courses: Same as Basic Requirements.
    2. Pass/Fail and Sat/Unsat: Same as Basic Requirements.
    3. Credit for prior work: Same as Basic Requirements.
    4. Plans of Study: Same as Basic Requirements.

**Requirements for Joint Concentrations: 36-44 credits for CS field (9-11 courses for CS field)**

Joint concentrations with certain other fields are possible. This option is intended for students who have interests in the intersection of two fields, not simply in the two fields independently; for example, a combined concentration in computer science and linguistics might be appropriate for a student with a special interest in computational linguistics. Course requirements are the same as for the Requirements for Honors Eligibility, except that only three technical electives are required. These three technical electives must satisfy the breadth requirement as stated in Breadth Requirement, with the further provision that one semester of Computer Science 91r may be used to satisfy the breadth requirement for joint concentrations. Such courses may also be double-counted towards the requirements of the other field. Joint concentrations are not “double majors.” Joint concentrators should be interested in the overlap between two fields, not simply in both. A thesis in the intersection of the fields is required for joint concentrators, read by both concentrations. The student is typically awarded the minimum honors recommended by the two concentrations separately. These requirements, including the thesis requirement, are the same whether Computer Science is the primary field or the allied field of the joint concentration. Students interested in combined programs should consult the Directors of Undergraduate Studies at an early date and should work carefully with both concentrations to ensure all deadlines and requirements of both concentrations are met. Students with separate interests in more than one field should consider a secondary rather than a joint concentration, or simply using some of their electives to study one of the fields. We advise all our joint concentrators to make sure that they satisfy the non-joint requirements for at least one concentration, in case they are unable to complete a thesis.

**The Mind, Brain, and Behavior Program**

Students interested in addressing questions of neuroscience and cognition from the perspective of computer science may pursue a special program of study affiliated with the University-wide Mind, Brain, and Behavior Initiative, that allows them to participate in a variety of related activities. (Similar programs are available through the Anthropology, History and Science, Human Evolutionary Biology, Linguistics, Neurobiology, Philosophy, and Psychology concentrations.) Requirements for this honors-only program are based on those of the computer science Requirements for Honors Eligibility, as explained below:

**Requirements for Mind, Brain, and Behavior Program: 12-14 courses (48-56 credits)**

1. *Required courses:*
    1. *Basic Mathematics (2-4 courses)*: Same as **Honors Requirements**.
    2. *Basic Software (2 courses)*: Same as **Honors Requirements**.
    3. *Theory (2 courses)*: Same as **Honors Requirements**, except that Statistics 110 may count towards the second theory course. Statistics 110 is an option for the theory requirement only

in the MBB track.
4. *Technical Electives (4 courses)*:
    1. MCB 80 or MCB 81
    2. One approved biology or psychology course
    3. An approved MBB junior tutorial
    4. Computer Science 181, 182, or 183
5. *Breadth Requirement (2 courses)*: Two courses from different course groupings, identified by the penultimate digit of the course number (3, 4, 5, 6, 7) (see Basic Requirements for list of areas and restrictions). Group 8 is not an option for the breadth requirement in MBB programs, but Computer Science 91r may also be used to satisfy the breadth requirement. (SLS 20 is not an approved course for the Computer Science MBB track.)

2. *Tutorial*: Same as **Honors Requirements**.
3. *Thesis*: A computationally-oriented thesis on a Mind, Brain, and Behavior-related topic is required. Students pursuing thesis research may want to enroll in Computer Science 91r under Technical Electives.
4. *General Examination*: None.
5. *Other information:*
    1. Approved courses: Same as Honors Requirements.
    2. Pass/Fail and Sat/Unsat: Same as Honors Requirements.
    3. Credit for prior work: Same as Honors Requirements.
    4. Plans of Study: Same as Honors Requirements.
6. *Note*: Students pursuing the Mind, Brain, and Behavior track are assigned an adviser in the field and are expected to participate in the University-wide Mind, Brain, and Behavior research milieu, including a non-credit senior year seminar for Mind, Brain, and Behavior thesis writers. To participate in the MBB track, students must both complete the Computer Science concentration Plan of Study and register at the beginning of every academic year on the MBB website. Interested students should contact the Computer Science liaison to the MBB program, Professor Stuart Shieber (shieber@seas.harvard.edu).

**ADVISING**

Students interested in concentrating in Computer Science are urged to consult the Directors of Undergraduate Studies early and often for advice on placement in courses and selection among courses. The Directors of Undergraduate Studies are happy to talk with freshmen and sophomores about their Plans of Study and to answer questions. When a student enters the concentration mid-way through the sophomore year, the Directors of Undergraduate Studies assign a professor to serve as the student's faculty adviser. Every effort is made to match the student's special interests to the expertise of the adviser. Students should consult their advisers regularly, certainly at the beginning of each term. When a faculty adviser is on leave, the student is temporarily reassigned to a new adviser. Students desiring a change of adviser for any reason should contact the Directors of Undergraduate Studies. The Directors of Undergraduate Studies are also available to discuss problems or questions of any kind with students in the concentration.

**HOW TO FIND OUT MORE**

Students interested in computer science are invited to join the mailing list for Computer Science, which carries announcements of new courses, colloquia, job and internship opportunities, and a variety of get-togethers for the Harvard computer science community. Information about other community resources can be found on the Computer Science website.

For further information, students should consult the Directors of Undergraduate Studies, (cs-dus@seas.harvard.edu).

**ENROLLMENT STATISTICS**
**Number of Concentrators as of December**

| Concentrators | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Computer Science | 86 | 86 | 99 | 143 | 198 | 253 | 263 | 306 | 363 | 394 | 385 | 407 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Computer Science + another field | 4 | 7 | 10 | 13 | 17 | 22 | 32 | 42 | 47 | 59 | 84 | 95 |
| Another field + Computer Science | 4 | 8 | 10 | 15 | 7 | 18 | 21 | 24 | 25 | 41 | 51 | 53 |

# Earth and Planetary Sciences

**Professor Miaki Ishii, Head Tutor**

Harvard offers outstanding opportunities for students who wish to pursue studies in Earth and planetary sciences. Research and course work in the Earth and Planetary Sciences (EPS) department encompass a broad range of science disciplines, technology, and applications to environmental and economic endeavors. These studies involve students in the development and application of new tools and technologies, state-of-the-art computational modeling of a wide range of Earth planetary processes, and field work in remote and challenging settings.

These are intellectually exciting times for the Earth and planetary sciences, which are of unprecedented importance to contemporary society. Our environment is increasingly subject to stresses placed upon it. As never before, we have an imperative to better understand the consequences of human activities for the Earth's atmosphere, the oceans, the solid Earth, and the organisms that live on it. Exploring for, extracting, and conserving natural resources are vital to the global political economy. We must mitigate the ill effects of earthquakes, landslides, volcanic eruptions, and climate change by learning to predict/forecast their time and place. Moreover, new technologies, data sets and computational capacity are allowing us to better understand the functioning of Earth systems and the interplay between tectonics, climate, and life.

Because the Earth's natural systems (atmosphere, ocean, biosphere, solid earth) are interconnected, the training of Earth and planetary scientists broadly spans the boundaries between biology, chemistry, engineering, physics, mathematics, and the Earth sciences themselves, and provides a broad intellectual foundation that is beyond what is typically possible in a "pure" science program. The department trains students rigorously in the basic sciences, typically in the same foundational courses as students in Astrophysics, Chemistry, Engineering Sciences, and Physics. These foundational courses are followed by upper-level courses that focus on disciplines within Earth and planetary sciences. Within the EPS department, students may focus on atmospheric and ocean science, energy and climate, environmental geoscience, geobiology, geochemistry, geology, planetary sciences, and solid earth geophysics.

To facilitate and reinforce our interdisciplinary vision, students are required to take at least one course in each of the three major sub-disciplines in the department: Atmosphere(s) and Oceans; Earth History and Geobiology; and Geology, Geophysics and Planetary Science. Moreover, all students are encouraged to participate in department-sponsored field experiences. Many students complete their studies with a senior thesis that affords the opportunity to do original research under the guidance of department faculty.

Career opportunities in Earth and planetary sciences are diverse, spanning the private, government, and academic sectors. Government service includes research and administration in NASA, the National Oceanographic and Atmospheric Agency, the US Geological Survey, the Environmental Protection Agency, and many other agencies and departments. Earth scientists work in and direct a number of oil and mineral exploration and production companies. Many opportunities continue to grow for entrepreneurs who build companies specializing in resources, natural hazards, waste repositories and cleanup, and environmental impacts. There also are abundant opportunities in the academic world for those continuing on to graduate degrees; and in addition to scientific career paths, an undergraduate degree in Earth and planetary sciences provides an excellent background for continuing study in law, business, and medicine.

The research environment of the department is an unparalleled resource for undergraduate education. Concentrators may work with faculty and graduate students on major research projects as a research or field assistant, in the context of course work, or as part of an undergraduate research project. Class

sizes are small and student-professor contact is frequent and informal. Each graduating senior becomes personally acquainted with numerous faculty members in the department. Writing a senior thesis, which may be based on field, laboratory, or theoretical research, provides students with the opportunity to explore beyond the elementary level in one or more of the subspecialties of Earth and planetary sciences.

**REQUIREMENTS**
**Requirements: 14 courses (56 credits)**

1. *Required courses*:
    1. EPS Courses (6 courses): At least one course at the 50- or 100-level sampling all three sub-disciplines: Atmosphere(s) and Oceans; Earth History and Geobiology; and Geology, Geophysics, and Planetary Science.
        1. A minimum of 2 foundational courses from either EPS 10 or GENED 1018, 1085, 1094,1098, 1137,1158, and 1167, and all 50-level EPS courses. NB: No more than one of these from EPS 10 or GENED 1018, 1070, 1085, 1094,1098, 1137, 1158, and 1167. Ordinarily, in order for a GENED course to count toward concentration credit, a student should take it prior to enrolling in any EPS courses.
        2. Four additional courses in EPS, at least three of which must be numbered 99 or above.
    2. Basic science requirements (6-7 courses):
        1. Physics: (2-3 courses): Options a and b are preferred.
            1. Physical Sciences 12a and 12b -or-
            2. Physics 15a, 15b, and 15c -or-
            3. Applied Physics 50a and 50b -or-
            4. Physical Sciences 2 and 3 by petition.
        2. Chemistry (2 courses):
            1. Physical Sciences 11 followed by Chemistry 17 or higher or EPS-ESE 133
                1. If a student has taken Physical Sciences 1 before declaring EPS concentration, Physical Sciences 1 can be used in place of Physical Sciences 11.
        3. Mathematics (2 courses) through or above Mathematics 21a and 21b, or Applied Mathematics 22a and 22b.
    3. Additional courses (ordinarily 1-2 courses) in EPS or selected courses in related fields to complete the requirement of at least 14 courses.
2. *Honors eligibility*: EPS 99A and EPS99B, Senior Thesis Tutorial.
   Students ordinarily complete two terms of EPS 99 (A and B) to be eligible for honors.
   EPS 99B must be taken for a letter grade. EPS 99B ill count toward concentration credit in 1.A.ii. Mid-year poster and final oral presentations of the thesis are required.
3. *Tutorial*: Required. (Generally taken in the sophomore year. Non-credit.)
4. *Thesis*: Optional for basic concentration; required for departmental (English) honors.
5. *General Examination*: None.
6. *Substitutions*: Advanced placement may be used to allow students to complete higher-level courses under A-B; but a minimum of two physics, two chemistry, and two mathematics courses must be completed to satisfy concentration requirements. Students interested in substituting a course in place of the above requirements should consult their EPS concentration adviser and submit a petition to the Academic Programs Manager.
7. *Other information:*
    1. None of the courses required for concentrators may be taken Pass/Fail and C– is normally the minimum acceptable grade.
    2. Students must complete the two foundational courses by the end of their first year in the concentration (ordinarily no later than the first semester of the junior year).
    3. Students are strongly encouraged to consult with a faculty adviser during their first year to plan appropriate choices of coursework in math, chemistry, and physics.
    4. *Related fields*: Includes selected departmental courses offered in Applied Mathematics, Astronomy, Chemistry, Computer Science, Engineering Sciences, Environmental Science and Public Policy, Mathematics, Organismic and Evolutionary Biology, Physics, and Statistics which count towards the respective concentration requirements upon approval of the Undergraduate Curriculum Committee. Students must petition to count related field courses for concentration credit prior to enrollment in the course. Courses offered through the General Education program are not admissible for the related field requirement, except as noted above in 1.

5. Math Ma, 1a, 1b; Life Sciences 1A and 1B normally do not count toward concentration credit.
6. *Thematic Plan of Study*: Students must discuss and develop individual plans of study together with their concentration adviser. Students are strongly encouraged to focus their departmental coursework in a thematic subfield (atmospheric and ocean science, energy and climate, environmental geoscience, geobiology, geochemistry, geology, planetary sciences, or solid earth geophysics).
7. *Summer School/Study Abroad*: Courses from study abroad, Harvard Summer School, or other Harvard schools may count toward concentration credit if approved by the EPS Undergraduate Curriculum Committee prior to the student's enrollment in these courses. Students must petition for such credit by contacting the Academic Programs Manager.
8. *Freshman Seminars*: Freshman Seminars ordinarily do not count for concentration credit because they are Sat/Unsat courses.
9. *Field Trips*: An important aspect of the EPS concentration is participation in field trips and/or summer and January field camps, supported by the department.

**Joint Concentration Requirements: 11 courses (44 credits)**

1. *Required Courses:*
    1. EPS courses (5 courses).
        1. A minimum of 2 foundational courses from either EPS 10 or GENED 1018, 1070, 1085, 1094, 1098, 1137, 1158, and 1167 and all 50-level EPS courses. NB: No more than one of these from EPS 10 or GENED 1018, 1070, 1085, 1094,1098, 1137, 1158 and 1167. Ordinarily, in order for GENED course to count toward concentration credit, a student should take it prior to enrolling in any EPS courses.
        2. Three additional courses in EPS, at least two of which must be numbered 99 or above.
    2. Basic science requirements (6-7 courses):
        1. Physics: (2-3 courses): Options a and b are preferred
            1. Physical Sciences 12a and 12b -or-
            2. Physics 15a, 15b, and 15c -or-
            3. Applied Physics 50a and 50b -or-
            4. Physical Sciences 2 and 3 by petition.
        2. Chemistry: (2 courses)
            1. Physical Sciences 11 followed by Chemistry 17 or higher or EPS-ESE 133
                - If a student has taken Physical Sciences 1 before declaring EPS concentration, Physical Sciences 1 can be used in place of Physical Sciences 11.
        3. Mathematics (2 courses) through or above Mathematics 21a and 21b, or Applied Mathematics 22a and 22b
2. *Honors eligibility*: EPS 99A and EPS99B : Senior Thesis Tutorial, or similar course in the student's other concentration. Students must complete at least one term as part of the joint concentration. EPS 99B must be taken for a letter grade. EPS 99B will count toward concentration credit in 1.A.ii. Mid-year poster and final oral presentations of the thesis are required.
3. *Tutorial*: Required. (Generally taken in the first year of declaring. Non-credit.)
4. *Thesis*: Required. An EPS faculty member must serve as a thesis reader.
5. *General Examination*: None.
6. *Substitutions*: Advanced placement may be used to allow students to complete higher-level courses under B; but a minimum of two physics, two chemistry, and two mathematics courses must be completed to satisfy concentration requirements. Students interested in substituting a course in place of the above requirements should consult their EPS concentration adviser and submit a petition to the Academic Programs Manager.
7. *Other information*: Same as **Concentration Requirements**.

**ADVISING**

At the beginning of the first term of concentration each student is assigned a faculty adviser. Students normally continue with the same adviser throughout their concentration, although advisers may be changed upon student request. For students writing a thesis, the senior thesis adviser will also act as an additional concentration adviser. Students should meet individually with their advisers at least once each term to discuss course selections and other academic matters. Students may also seek advice from the Head Tutor at any time. Students seeking additional advising about course options in chemistry are

encouraged to speak with Professor James G. Anderson (Link Bldg 270, 495-5922; Anderson@huarp.harvard.edu).

For up-to-date information on advising in Earth and Planetary Sciences, please see the Advising Programs Office website.

**RESOURCES**

The Department of Earth and Planetary Sciences is housed partly in the Hoffman Laboratory of Experimental Geology, which is directly connected with department classrooms and offices in the Geological Museum on Oxford Street. Some of the atmospheric sciences are housed in Pierce Hall, just across Oxford Street from Hoffman Laboratory. Biological oceanography and paleontology are housed in the Geological Museum, with direct connection through the museum to the parts of the department located in Hoffman Laboratory.

**HOW TO FIND OUT MORE**

All essential information about the concentration is included here. Additional information may be obtained from the department's Academic Office, on the fourth floor of Hoffman Laboratory, or from the Head Tutor, or on our website. Outside of the Academic Office, Hoffman 4th floor, is a bulletin board that contains many notices of job opportunities, lectures, fellowships, and other matters of interest.

Head Tutor Professor Miaki Ishii, Geological Museum 202C, 617-384-8066, ishii@eps.harvard.edu;

Academic Programs Manager Chenoweth Moffatt, Hoffman Laboratory Room 402, 617-384-9760, moffatt@eps.harvard.edu.

**ENROLLMENT STATISTICS**
**Number of Concentrators as of December**

| Concentrators | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Earth and Planetary Sciences | 24 | 27 | 17 | 17 | 16 | 12 | 18 | 18 | 21 | 20 | 16 | 11 |
| Earth and Planetary Sciences + another field | 4 | 1 | 1 | 2 | 3 | 6 | 5 | 4 | 5 | 4 | 5 | 7 |
| Another field + Earth and Planetary Sciences | 5 | 7 | 6 | 7 | 8 | 5 | 5 | 5 | 2 | 1 | 1 | 3 |

# East Asian Studies

**Professor Melissa McCormick, Director of Undergraduate Studies**

The concentration in East Asian Studies seeks to develop a critical understanding of the human experience in East Asia. To study East Asia is to be exposed to a world with different forms of political activity and social relations, religious traditions of great depth and philosophical schools with enduring insights, and literatures of unusual range and power. It is also to study a world that since the 19th century has come to share in the dilemmas of modernity that we all confront. For some this inquiry provides a challenging and satisfying addition to a liberal arts education. For some it is an opportunity to restore connections to an ancestral past. For others it leads to graduate studies. And for many others it is the beginning of a professional career with an East Asian component. The program provides preparation for a variety of fields of work and advanced study after graduation. Study abroad is encouraged.

A concentrator develops skills in a language, participates in the tutorial program, and selects from a rich offering of lecture courses and seminars. The program allows students to learn about East Asia as a

whole and also to pursue specialized study of one or more East Asian societies: China, Japan, Korea, or Vietnam. While there are some commonalities among the many cultures and peoples of East Asia, there are also innumerable differences that mark each of these cultures and peoples as distinct in their own right. Thus, a primary goal of the Concentration in East Asian Studies is to expose students to both the unity and the multiplicity of this vast and complex region.

The concentration offers a broad range of possibilities for students interested in the social sciences or the humanities. EAS facilitates course work in social sciences, incorporating approaches to modern East Asia drawn from political science, sociology, anthropology, economics, and psychology. Students with an interest in the humanities can choose to study modern and pre-modern East Asia from the perspectives of history, literature, art history, cultural studies, religion, philosophy, and folklore. EAS faculty are drawn from the departments of East Asian Languages and Civilizations, Anthropology, Economics, Government, History, History of Art and Architecture, Sociology; the schools of Business and Law; and the Kennedy School of Government. The sophomore tutorial introduces a variety of perspectives from the humanities and the social sciences and offers concentrators a forum to interact with Harvard's East Asia faculty. At the end of the sophomore year, students typically decide on a disciplinary or area focus or choose a comparative perspective (involving one or more than one area or discipline) in consultation with the Director of Undergraduate Studies and their assigned faculty adviser. Juniors take an EAS 98 offering or an approved course to serve as their junior tutorial and may choose to spend the summer in East Asia doing research or internships. Honors candidates usually spend the senior year researching and writing the honors thesis.

The East Asian Studies concentration welcomes joint concentrators. Primary concentrators in another field who are interested in language study take six courses of language, the sophomore tutorial, and two area courses. Those interested in area studies take the sophomore tutorial and five additional courses on East Asia. Please consult the East Asian Studies tutorial office for detailed requirements.

**REQUIREMENTS**
**Basic Requirements: 12 courses (48 credits)**

1. *Required courses:*
    1. *Language*: At least four, and no more than six, courses in Chinese, Japanese, Korean, Mongolian, Tibetan, or Vietnamese; or an approved combination of courses involving two East Asian languages. The language requirement is met by attaining a level of competence equivalent to four courses of language study; thus, it is possible for the requirement to be satisfied in part by work done or experience gained elsewhere than in formal course work at Harvard. However, students who are allowed to take fewer than four courses of language due to previous training or knowledge are required to substitute other courses. No more than six courses of language may be counted for concentration credit.
    2. *Tutorials*: Two courses of tutorial or courses designated as equivalents. See 2a and 2b for more information.
    3. *Area Courses*: Four to six non-language courses in East Asian or related subjects, selected from the list available in the undergraduate office. One of these courses must be one of the following survey courses: General Education 1136 Power and Civilization: China (formerly SW 12), History 1023 Japan in Asia and the World (formerly SW 13), or General Education 1100 The Two Koreas in the Modern World (formerly SW 27). It is recommended that at least two area courses be upper-level seminars. The number of courses required depends on the number of East Asian language courses that a student chooses. Together these must total ten, so a student who chooses to count six courses of language requires four additional area courses, and a student who chooses to count four language courses requires six area courses.
2. *Tutorials*:
    1. East Asian Studies 97ab: Sophomore Tutorial (may be taken in sophomore or junior year).
    2. East Asian Studies 98: Junior Tutorial. With permission of the Director of Undergraduate Studies, an approved replacement course may be substituted for EAS 98.
3. *Thesis*: None.
4. *General Examination*: None.
5. *Other information*: Courses counted for concentration credit may not be taken Pass/Fail, except by special petition. EAS 97ab may not be taken Pass/Fail. General Education classes on East Asia can be counted for concentration credit. Content courses taught in an East Asian language can count toward the language or area course requirement. A content course taught in an East Asian

language may also count as a junior tutorial replacement course with the written permission of the Director of Undergraduate Studies. One Humanities Frameworks 4 credit course may count towards EAS area credit.

**Requirements for Honors Eligibility: 13 courses (52 credits)**

1. *Required courses:*
    1. *Language*: Four courses in Chinese, Japanese, Korean, Mongolian, Tibetan, or Vietnamese, or an approved combination of courses involving two East Asian languages (see Basic Requirements, item 1a).
    2. *Tutorials*: Four courses of tutorial or courses designated as equivalents. *See 2 for more information*.
    3. *Area Courses*: Three to five courses selected from among East Asian or related subjects (see item 1c of **Basic Requirements**), including language courses beyond **Basic Requirements**. The number of courses required depends on the number of East Asian language courses that a student chooses. Together, these must total nine, so a student who chooses to count six courses of language requires three additional area courses, and a student who chooses to count four language courses requires five area courses.
2. *Tutorials*: Same as **Basic Requirements**. Plus: *Senior year*: East Asian Studies 99 (two terms), preparation of thesis, required. Letter-graded. The senior tutorial consists of weekly meetings with the graduate student adviser and regular (usually bi-weekly) meetings with the faculty adviser. There are also periodic meetings with other seniors writing theses. EAS 99 counts towards course requirements.
3. *Thesis*: Required of all honors candidates.
4. *General Examination*: None.
5. *Other information*: Courses counted for concentration credit may not be taken Pass/Fail, except by special petition. EAS 97ab may not be taken Pass/Fail. General Education classes on East Asia can be counted for concentration credit. Content courses taught in an East Asian language can count toward the language or area course requirement. A content course taught in an East Asian language may also count as a junior tutorial replacement course with the written permission of the Director of Undergraduate Studies. One Humanities Frameworks 4 credit course may count towards EAS area credit.

**Concentration requirements for the Joint Concentration in East Asian History: 14 courses (56 credits)**

Students whose interest in East Asian civilization is primarily historical should consider concentrating in East Asian History. East Asian History is a joint concentration co-sponsored by the History Department and the East Asian Studies concentration. It aims to take advantage of the strengths of both concentrations. The goal of the program is to introduce students to the craft of historical study—the ways historians make sense of the past, and the skills of historical analysis, writing, and research—as well as to promote a critical understanding of the historical experience of East Asian societies. In addition to in-depth language study and substantial course work in the history of East Asia, students enrolling in this concentration will do one half of their tutorial work in the History Department and the other half in the East Asian Studies concentration. The sophomore tutorial in History introduces students to the analysis of historical writing in various genres, while the EAS sophomore tutorial introduces the history, literature and intellectual traditions of China, Japan, and Korea. By taking a History department research seminar or an EALC research seminar, students are introduced to methods of historical research and writing and have the opportunity to conduct in-depth research projects. In the senior year, joint concentrators will work with an appropriate faculty adviser and graduate student tutor to write a thesis, an original work in some aspect of East Asian history.

1. *East Asian Language Courses (4 courses): Four courses of study of an East Asian language.*
2. *Additional Coursework (8 courses)*
    1. History 97.
    2. East Asian Studies 97. Both 97 tutorials are offered in the spring term only; students may choose to take both during their sophomore spring, or to take one in the sophomore spring and the other in the junior spring.
    3. One seminar focused on East Asian History and culminating in a 20 page research paper involving primary search. Must be completed by the end of the junior spring, in preparation for the senior thesis.

4. One course that focuses significantly on U.S. or European history.
5. One course in pre-modern East Asian History.
6. One course in modern East Asian History.
7. Two additional electives within East Asian History.

3. *Senior Thesis (2 courses)*: Students who wish to pursue a joint concentration in East Asian History must write a Senior Thesis, which also requires enrollment in one of two year-long Senior Thesis Seminars: either History 99 or East Asian Studies 99. Students may select either seminar.
4. *Please also note the following information:*
    1. Two types of courses count automatically toward East Asian History concentration requirements:
        1. Courses listed in courses.my.harvard.edu "History" course search (especially 1600-level courses) and "East Asian Languages and Civilization" section (especially under "East Asian Studies," as well as "Japanese History," "Chinese History," and "Korean History"), including cross-listed courses; and
        2. Courses taught in the General Education and/or Freshman Seminar programs by full members of the History faculty or historical courses taught by faculty in East Asian Languages and Civilizations. Students wishing to count such courses toward their concentration requirements should consult the Undergraduate Office, as they may need to file a petition requiring approval by the Director of Undergraduate Studies. Students may also apply to do an independent study, or History 91r, with a member of the Department; History 91r can be used to fulfill one of the elective course requirements.
    2. The joint concentration also regularly accepts credit from both Study Abroad and Advanced Standing toward concentration requirements. With the exception of certain Freshman Seminars taught by History or East Asian Studies faculty (see above), courses taken on Pass/Fail basis may not be counted for concentration credit.

**ADVISING**

All concentrators meet individually with the Director of Undergraduate Studies and the Assistant Director of Undergraduate Studies during the first week of each term. At other times, students are welcome to drop in during office hours as often as is desired or necessary. At the end of the sophomore year, students consult with the Director of Undergraduate Studies and the Assistant Director of Undergraduate Studies regarding their choice of disciplinary and area focus. Students are also encouraged to make appointments to meet with the Director of Undergraduate Studies, the Assistant Director of Undergraduate Studies, and faculty adviser or to come to their office hours.

For up-to-date information on advising in East Asian Studies, please see the Advising Programs Office website.

**RESOURCES**

Students of East Asia at Harvard, in whatever program, benefit from a number of unusual resources. Among these are the magnificent collections of the Harvard-Yenching Library—the Chinese collection is perhaps the most comprehensive in the world, while those on Japan and Korea also are imposing. The Harvard-Yenching Institute, in addition to its support of the library, operates programs that bring younger East Asian scholars and graduate students to Harvard. The Fairbank Center for East Asian Research and the Reischauer Institute of Japanese Studies also have a number of scholars on East Asia in residence annually, and sponsor workshops and other enriching activities. Harvard, moreover, sponsors certain study programs abroad, and the existence of these and other opportunities has led to an increasing number of students spending one of their undergraduate years in East Asia.

**HOW TO FIND OUT MORE**

Freshmen or sophomores interested in concentrating on East Asia should contact the Director of Undergraduate Studies, Ryuichi Abe, or the Coordinator for EAS, Nicole Escolas. They can also stop by the EAS office at 9 Kirkland Place during office hours, come to the office hours of the Director of Undergraduate Studies and the Assistant Director of Undergraduate Studies, or make appointments with them. A copy of our brochure, East Asian Studies at Harvard University, A Guide for Undergraduates is available on the EAS website. More information can be obtained by emailing eas@fas.harvard.edu or calling 617-495-8365.

**ENROLLMENT STATISTICS**

**Number of Concentrators as of December**

| Concentrators | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| East Asian Studies | 40 | 32 | 31 | 41 | 46 | 39 | 28 | 22 | 22 | 18 | 13 | 12 |
| East Asian Studies + another field | 1 | 0 | 2 | 2 | 3 | 3 | 7 | 5 | 3 | 1 | 5 | 4 |
| Another field + East Asian Studies | 13 | 5 | 6 | 11 | 12 | 14 | 15 | 10 | 9 | 13 | 15 | 19 |

# Economics

**Professor Jeffrey Miron, Director of Undergraduate Studies**

Economics is a social science that covers a broad subject matter in seeking to understand the social world. An economic analysis begins from the premise that individuals have goals and that they pursue those goals as best they can. Economics studies the behavior of social systems—such as markets, corporations, legislatures, and families—as the outcome of interactions through institutions between goal-directed individuals. Ultimately, economists make recommendations that they believe will make people better off.

Traditionally, economics has focused on understanding prices, competitive markets, and the interactions between markets. While topics such as monopolies and antitrust, income inequality, economic growth, and the business cycle continue to be important areas of inquiry, the subject matter of economics has broadened. Today, economists address a remarkable variety of social science questions. Will school vouchers improve the quality of education? Do politicians manipulate the business cycle? What sort of legal regime best promotes economic development? Why do cities have ghettos? What can be done about grade inflation? Why do people procrastinate in saving for retirement—or in doing their homework?

Economics today is a scientific discipline. Bringing their particular perspective to social science questions, economists formulate theories and collect evidence to test these theories against alternative ideas. Doing economic research involves asking questions about the social world and addressing those questions with data and models, employing mathematical and statistical tools whenever possible to aid the analysis.

An undergraduate education in economics focuses on learning to analyze the world in terms of tradeoffs and incentives—that is, to think like an economist. Students concentrating in economics begin, ordinarily, in their first year with Economics 10a and 10b, the introductory courses in economics. Because marginal conditions hold a central place among economists' analytical tools, prospective economics concentrators are required to complete math at the level of Math 1a. Students who have already met this requirement may choose to continue their study of mathematics in order to prepare for courses that assume familiarity with more advanced topics in mathematics or for graduate study in economics. Students hoping to graduate with honors must complete additional math courses; see the specific requirements below. First-year students are also encouraged to take the required introductory statistics course. The ability to interpret quantitative data and to understand statistical arguments is essential to understanding the economy. Students who have not completed this requirement their first year are advised to fulfill it their sophomore year.

Concentrators ordinarily take four or five economics courses in their sophomore year. Two courses make up the intermediate theory sequence: one of Economics 1010a or 1011a (Intermediate Microeconomics) and one of Economics 1010b or 1011b (Intermediate Macroeconomics). These courses teach the analytical tools that economists use. The 1011 courses assume a more advanced background in mathematics than the 1010 courses. The third course generally taken in the sophomore year is Economics 970, the Sophomore Tutorial, which is taught in classes of eight to 10 students. The

Sophomore Tutorial is an intensive experience aimed at helping concentrators understand the nature of economics research, discuss economic arguments both orally and in writing, and start to carry out their own research. Finally, students are advised to fulfill the econometrics requirement (Economics 1123 or 1126) in the sophomore year. This helps students get the most out of their Sophomore Tutorials as they use the tools learned in econometrics.

Beyond these foundational courses, all concentrators are required to take three additional elective courses in the Economics Department. Students can pursue Honors either by writing a senior thesis or taking the non-thesis Advanced Course Track (ACT); see the specific requirements below. Honors candidates must also take the economics honors exam in the spring of their senior year.

In recent years, approximately 25 percent of economics concentrators have chosen to write a senior thesis. Senior thesis topics often spring from a question of interest first raised in an economics elective course. Students are therefore strongly advised to take courses before their senior year in areas in which they might want to write their theses.

Undergraduates are welcome in graduate courses and often do well in them. Because coverage of the professional literature is a primary objective of such courses, they are generally demanding and time-consuming for undergraduates.

A detailed description of the Economics Department and its requirements can be found on the Economics Undergraduate Program website. In particular, economics-interested undergraduates are encouraged to explore the handbook, Undergraduate Economics at Harvard: A Guide for Concentrators, available online.

**REQUIREMENTS**
**Basic Requirements: 11 courses (44 credits)**

1. *Required courses:*
    1. Economics 10a and 10b (Principles of Economics). Students with Economics AP scores of 5, or A levels or IB scores of 7, may choose to skip either/both parts of Ec 10. However, they must replace each semester of Ec 10 that is skipped with one elective course in economics. Consult the economics concentrator guide or a concentration adviser for details.
    2. Math 1a (or, placement into Math 1b or higher, or an AP Calculus AB or BC score of 5). Students who place out of this course do not need to replace it with an additional course.
    3. Economics 970: Sophomore Tutorial.
    4. Statistics 100, 104, 109, or 110; or Applied Math 101; or Math 154; or Econ 20. Note: the first eligible statistics course on your transcript will be the one counted for the economics concentration.
    5. Economics 1010a or 1011a (Intermediate Microeconomics).
    6. Economics 1010b or 1011b (Intermediate Macroeconomics).
    7. Economics 1123 or 1126 (Econometrics).
    8. Three additional courses in economics that include:
        1. one course that satisfies the writing requirement (see item 5a).
        2. one course that has Economics 1010a, 1010b, 1011a, or 1011b as a prerequisite.
        3. *Note*: Some courses can be used to satisfy both the “writing” and “prerequisite” requirements simultaneously. However, a total of three economics courses must still be taken.
2. *Tutorials* (letter-graded):
    1. *Sophomore Tutorial*: Economics 970 is required, as mentioned in item 1c.
3. *Thesis*: None required for the basic track.
4. *General Examination*: None required for the Basic Track.
5. *Other information*:
    1. *Writing Requirement*: A list of courses that satisfy the writing requirement is available from the Undergraduate Office and online.
    2. *Pass/Fail*: Concentrators may take up to two courses Pass/Fail, except for (i) those courses used to fulfill items 1a–g of the required courses, (ii) tutorials, and (iii) courses used to meet the writing requirement in item 1h.
    3. *Joint Concentrations*: The Economics Department does not participate in joint concentrations.
    4. *Theory Requirement*: Concentrators must demonstrate their command of the basic tools of

economic analysis by receiving a grade of B- or higher in **both** Economics 1010a/1011a **and** Economics 1010b/1011b. (Please see a concentration adviser for the grade requirement for Economics 1010/1011ab taken prior to Fall 2014.) Students who receive below a B- in 1010a/1011a must either register for 975a or take an extra economics elective with 1010a/1011a as a prerequisite. Those who receive below a B- in 1010b/1011b must register for 975b or take an extra economics elective with 1010b/1011b as a prerequisite. The Economics 975ab courses involve retaking the corresponding intermediate theory course. In all cases, students must receive a grade of B- or higher in the make-up course. Concentrators will not receive a degree in economics until this requirement is met. Economics 975ab does not satisfy any economics electives required in item 1h; however, it **will** it be factored into the economics GPA of students pursuing honors.

Concentrators may take either one approved Harvard Summer School class listed on the Economics Summer School webpage or one approved study abroad course or one approved cross-registered course at MIT to meet a course requirement for the concentration. Courses from study abroad and at MIT are approved at the department's discretion as outlined on the Department Study Abroad webpage.

*Please note: Due to COVID-19, the Economics Department is allowing concentrators in the Classes of 2021, 2022, and 2023 to count more Harvard Summer School Classes towards the Economics concentration. Please see the Economics Summer School webpage.*

**Requirements for Honors Eligibility: 15 courses (60 credits)**

1. *Required courses*: Same as **Basic Requirements**, plus:
    1. Math 1b and one of Math 18, Math 21a, Applied Math 21a, or higher-level calculus course. Students who choose to skip Math 1b do not need to replace it with an additional course.
    2. *For Thesis Track honors*: Economics 985 (two terms) or 990 (two terms) and completion of a thesis.
    3. *For Advanced Course Track (ACT) honors*: Two additional economics elective courses, which must include an additional "writing" requirement and an additional "theory prerequisite." Details in item 5a of this section.
2. *Tutorials* (All letter-graded): Same as **Basic Requirements**, plus:
    1. *Thesis Tutorial*: As discussed in 1b, Thesis Track honors candidates must enroll in Economics 985 (two terms) or Economics 990 (two terms) during their final two terms. Economics 990 is generally for off-cycle students who are graduating in the fall term.
3. *Thesis*: Required for a recommendation for High or Highest Honors in Field. See item 5a of this section.
4. *General Examination*: In the spring term of their senior year, all economics honors candidates must take a general examination covering microeconomics, macroeconomics, and econometrics.
5. *Other information*: Same as **Basic Requirements**, plus:
    1. In order to be considered for an honors recommendation in Economics, a student has two options:
        1. *Thesis Track*: To be considered for a High or Highest Honors recommendation in Economics, a student must complete a thesis, in addition to the requirements specified above.
        2. *Advanced Course Track*: To be considered for an Honors recommendation in Economics, a student can pursue the ACT, which is the non-thesis honors option. The requirements are discussed above. As stated in item 1c, two additional courses in economics are required (beyond the three courses and requirements in item 1h in Basic Requirements). Within this total of five courses, the student must have at least two courses that have Economics 1010a, 1010b, 1011a, or 1011b as a prerequisite and at least two courses that satisfy the writing requirement.
    2. A document explaining the Economics Department honors calculations is available on the Department Honors webpage.

**ADVISING**

Students interested in economics are encouraged to visit the Economics Undergraduate Advising Office, located on the first floor of Littauer Center, for information and advice about economics courses and the economics concentration. The office is headed by Jeffrey Miron—the Director of Undergraduate Studies—five PhD economists who serve as concentration advisers, and the Undergraduate Program

Coordinator. Concentration advisers are available in the Economics Undergraduate Advising Office (Littauer 109-116) on a walk-in basis, from 10am to 4pm, Monday through Friday, during the semester; they are happy to respond to any student questions or concerns. Concentration advisers can lift advising holds, approve concentration declaration forms, sign add/drop forms, and advise/approve courses for concentrators from study abroad. More importantly, they can explain Department requirements, discuss students' academic and research interests, offer advice on course choices, and discuss future plans, such as job possibilities or graduate or professional school.

Note: If the College is under remote instruction, the advisers will continue to hold their usual office hours via Zoom. Details on the Economics Advising webpage.

Each concentrator has an assigned adviser based on their residential House. Students will hear from their concentration adviser periodically to inform them of office hours, important deadlines, meetings, and requirements. Students may, at any time, contact their concentration adviser for help or for information. Students are also welcomed to seek advice from any of the advisers during walk-in advising office hours.

For up-to-date information on economics advising, please see the Economics Advising webpage.

**STUDY ABROAD**

The Economics Department supports study abroad for a term or an academic year. It is generally recommended for students to study abroad during their junior year. Students may earn concentration credit for up to one course (4 credits) taken while abroad. Students may postpone Economics 970 (Sophomore Tutorial) if they choose to go abroad during their sophomore year.

After choosing a university and obtaining College approval for planned courses from the Office of International Education, students should visit their concentration adviser during office hours (or contact them via email) and provide copies of course syllabi. The adviser will grant credit toward fulfilling economics concentration requirements for appropriate courses (although some students choose not to fulfill economics concentration requirements while abroad). To count for concentration credit, a course must be primarily economic in content and methodology and roughly equivalent in difficulty to a Harvard Economics Department course. Courses with an intermediate theory prerequisite may count toward the theory prerequisite requirement. Students who write a paper longer than 15 pages for a course can submit the graded paper to their concentration adviser, who may grant writing requirement credit for the course if the paper has substantial economic content.

**HOW TO FIND OUT MORE**

There is an abundance of information on the Economics Department website. To declare an economics concentration, students must (1) submit their declaration on my.harvard.edu and then (2) bring a completed copy of the Economics Declaration and Plan of Study form to a concentration adviser for approval. A detailed description of the Economics Department and its requirements can be found in the handbook, Undergraduate Economics at Harvard: A Guide for Concentrators, available online.

**ENROLLMENT STATISTICS**
**Number of Concentrators as of December**

| Concentrators | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Economics* | 742 | 698 | 635 | 621 | 568 | 577 | 618 | 662 | 662 | 660 | 636 | 612 |

*Economics does not participate in joint concentrations.

# Electrical Engineering

**Professor Gu-Yeon Wei, Director of Undergraduate Studies**
**Dr. Chris Lombardo, Associate Director of Undergraduate Studies**

Electrical Engineering has long played a critical role in undergirding the innovation that has improved quality of life, supported economic growth and addressed societal problems. Its emergence as a

separate field of study in the late 19th century paralleled, and was responsive to, the large-scale introduction of telegraphy and electrical lighting. Electrical engineering has continued to play a pivotal role in power and energy distribution, communications, and computation, even as the power-carrying channels have evolved from heavy metal cables to nanowires or optical fibers, the networks of communications have evolved from wires to wireless to neurons, and electrical switches have evolved from vacuum tubes to transistors to carbon nanotubes. The essential technologies that join us all together—mobile phones, laptops, wireless communications, downloaded videos, light-emitting diodes, electronic displays, the electrical power grid, and ATM transactions—are all evidence of the impact and continual innovation of electrical engineering.

Electrical Engineering is a broadly diverse field that encompasses, for example, controls, communications, signal processing, circuit design, computer engineering, and electronic and photonic devices. This concentration requires a foundational group of five courses including Engineering Sciences 150, 152, 155, 156, and Computer Science 141. It also requires completion of a minimum of three electrical engineering electives and two additional engineering electives.

The objectives of the electrical engineering program are to provide students a solid foundation in electrical engineering within the setting of a liberal arts college for preparation for a diverse range of careers in industry and government, or for advanced work in engineering, business, law, or medicine. It enables the acquisition of a broad range of skills and attitudes drawn from the humanities, social sciences, and sciences in addition to engineering, which enhances engineering knowledge and contributes to future leadership and technical success.

The SB degree program requires a minimum of twenty courses (80 credits). The curriculum is structured with advanced courses building on the knowledge acquired in math, science, and introductory engineering science courses. Concentrators are strongly encouraged to complete the common prerequisite course sequence in their first two years at Harvard. This includes Math (through 1a and 1b; plus 21a and 21b, 22a and 22b, 23a and 23b, or Applied Mathematics 21a and 21b, or 22a and 22b), Physics (through Physical Sciences 12a and 12b, Physics 15a and 15b, or Applied Physics 50a and 50b), and Computer Science 50. Students are cautioned that it is more important to derive a solid understanding of these basic subjects than to complete them quickly without thorough knowledge; this material is extensively used in many subsequent courses. If in doubt, it may be wise to enroll in the Math 1 sequence rather than proceed to Math 21a or 23a with marginal preparation.

The SB programs in Electrical Engineering and Engineering Sciences share many course requirements, and there is some flexibility in moving between these programs. To get an early sample of engineering coursework, entering students are invited to enroll in Environmental Science and Engineering 6 (Environmental Science and Engineering), Engineering Sciences 50 (Electrical Engineering), Engineering Sciences 51 (Mechanical Engineering), and Engineering Sciences 53 (Biomedical Engineering). These introductory courses have minimal prerequisites and have been very popular with prospective engineering concentrators. Engineering 50 and 51 have extensive hands-on laboratory sections.

Upon graduation, students in the Electrical Engineering concentration should demonstrate the following student outcomes:

1. An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.
2. An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.
3. An ability to communicate effectively with a range of audiences.
4. An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgements, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.
5. An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environmental, establish goals, plan tasks, and meet objectives.
6. An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgement to draw conclusions.
7. An ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

**REQUIREMENTS**

**20 courses (80 credits)**

1. *Required courses:*
    1. *Mathematics/Probability and Statistics/Applied Mathematics (four courses):*
        1. Mathematics 1a and 1b; Applied Mathematics 21a and 21b, Applied Mathematics 22a and 22b, Mathematics 21a and 21b, Mathematics 22a and 22b, or Mathematics 23a and 23b.
        2. Probability and Statistics (one course): Engineering Sciences 150.
        3. Applied Mathematics (one course): At least one of Applied Mathematics 104, 105, 106, 107, 108, or 120 (if starting in Mathematics 21a, 22a, or 23a or Applied Mathematics 21a or 22a).
    2. *Physics (two courses)*: Applied Physics 50a, Physical Sciences 12a, or Physics 15a or 16; and Applied Physics 50b, Physical Sciences 12b, or Physics 15b. Appropriate advanced-level physics courses may also fulfill this requirement (please consult with SEAS advisers).
    3. *Introductory Science (two courses)*: Life Sciences 1a or Life and Physical Sciences A, Physical Sciences 1 or 11, Physical Sciences 10, Physics 15c, and other relevant introductory science courses (please consult with SEAS advisers).
    4. *Computer Science (one course)*: Computer Science 50, 51, or 61.
    5. *Engineering Design (two courses)*: Engineering Sciences 96 and 100hf (see item 3 below). Engineering Sciences 96 must in taken in junior year, prior to ES 100hf.
    6. *Required Electrical Engineering Core (four courses)*: Engineering Sciences 152, 155, 156, and Computer Science 141.
    7. *Electrical Engineering Electives (three courses)*:
        1. Engineering Sciences 50 or 54 (formerly 52), 143, 151, 153, 154, 157, 158, 159, 170, 173, 175, 176, 177
        2. Applied Physics 195
        3. Computer Science 61, 143, 144r, 146, 148, 189
        4. Biomedical Engineering 128, 129, 130
        5. *Note*: Not more than two from: Engineering Sciences 50 or 54 (formerly 52), Computer Science 61, Engineering Sciences 170
        6. *Note*: By prior approval, advanced-level engineering science courses relevant to electrical engineering and advanced-level MIT courses in electrical engineering.
    8. *Engineering Electives (two courses)*:
        1. Engineering Sciences 51, 53, 111, 115, 120, 121, 123, 125, 181, 190; Environmental Science and Engineering 6, Computer Science 51
        2. *Note*: ABET accreditation requires that all students complete at least 8 courses in math and science and 12 courses in engineering topics. Students who start in Math Ma will need to take 22 courses, and students who start in Math 1a will need to take 21 courses, in order to fulfill the degree requirements. ES 150 counts as a course in math. Given the number and complexity of the requirements, students interested in pursuing Electrical Engineering should consult with the Associate Director of Undergraduate Studies or Director of Undergraduate Studies about their plans of study as early as possible.
2. *Sophomore Forum*: Sophomore year. Non-credit. Spring term.
3. *Tutorial*: Required. Engineering Sciences 100hf.
4. *Thesis*: Required: An individual engineering design project is an essential element of every SB program and is undertaken during the senior year as part of Engineering Sciences 100hf. Faculty-supervised reading and research is an important aspect of this requirement.
5. *General Examination*: None.
6. *Other Information:*
    1. Engineering Sciences 50, 51, and 53, and Environmental Science and Engineering 6: No more than two of these courses may count toward concentration credit. Engineering Sciences 50 and 53 and Environmental Science and Engineering 6 can only count as an engineering elective when taken during the freshman or sophomore year.
    2. By prior petition and approval, other advanced undergraduate or graduate courses, as well as courses at MIT, can be used to satisfy general requirements and track requirements and electives. Petitions will only be considered for courses that possess engineering content at a level similar to other technical engineering courses at SEAS.
    3. *Pass/Fail and Sat/Unsat*: None of the courses used to satisfy the concentration requirements may be taken Pass/Fail or Sat/Unsat.
    4. *Plan of Study*: Concentrators are required to file an approved departmental Plan of Study

during their third term (i.e., the first term of their sophomore year) and to keep their plan up to date in subsequent years. All SB programs must meet the overall ABET program guidelines, a minimum of four courses in basic sciences, four courses in mathematics and twelve courses in engineering topics. Plan of Study forms may be obtained from the School of Engineering and Applied Sciences' Office of Academic Programs, Pierce Hall 110, and from the SEAS website.

5. *Additional Terms*: Concentrators who wish to remain beyond the end of the second term of their senior year to complete the SB requirements must be approved to do so by the Undergraduate Engineering Committee. A written petition is required and should always be submitted as early as possible and under discussion with the Associate Director of Undergraduate Studies or Director of Undergraduate Studies. Petitions can be submitted no later than January 15 between the student's fifth and sixth terms (i.e., middle of junior year), or August 15 between the student's fifth and sixth terms if the student's fifth term is the spring. Under no circumstances will the Committee grant a student permission for more than two additional terms. Petitions are only granted in exceptional cases and only to meet specific SB degree requirements. More information can be found on the SEAS website.
6. *Joint Concentrations*: Electrical Engineering does not participate in joint concentrations.
7. Only one of ES 91r (4 credits) or ES 91hfr (4 credits) can count as an approved elective in the degree requirements.
8. Any exceptions to these policies must be approved via written petition.

**ADVISING**

Students interested in concentrating in Electrical Engineering should discuss their plans with the Director of Undergraduate Studies, the Associate Director of Undergraduate Studies, or the Undergraduate Academic Programs Manager. Each undergraduate who elects to concentrate in Electrical Engineering is assigned a faculty adviser depending on the student's area of specialization. The faculty adviser might also be a member of the Undergraduate Engineering Committee, whose members have the responsibility for reviewing departmental Plans of Study. If students do not request a change in adviser, they have the same adviser until they graduate. Each student is reassigned to another faculty member while the original faculty adviser is on leave. It is expected that students will discuss their Plans of Study and progress with their Director of Undergraduate Studies or Associate Director of Undergraduate Studies at the beginning of each term. Students may seek advice from their faculty adviser, the Director of Undergraduate Studies, the Associate Director of Undergraduate Studies, or the Academic Programs Manager at any time.

**HOW TO FIND OUT MORE**

Further information is available from the Director of Undergraduate Studies, Gu-Yeon Wei, guyeon@seas.harvard.edu, 617-384-8131; and the Associate Director of Undergraduate Studies, Dr. Christopher Lombardo, lombardo@seas.harvard.edu, (617) 496-5185; or the Undergraduate Academic Programs Manager, Kathy Lovell, klovell@seas.harvard.edu, (617) 496-1524.

**ENROLLMENT STATISTICS**
**Number of Concentrators as of December**

| Concentrators | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|
| Electrical Engineering | 16 | 38 | 47 | 43 | 39 | 40 | 44 | 30 |
| Electrical Engineering + another field | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| Another field + Electrical Engineering | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

*Electrical Engineering was a new concentration in 2012-13.

# Engineering Sciences

**Professor Zhiming Kuang, Director of Undergraduate Studies**

Engineering innovation has long played a critical role in enhancing social progress and bringing about an improved quality of life. Within the past 50 years, the pace and impact of innovation have increased dramatically, facilitating modern health, energy, transportation, communications, and computational infrastructures that knit together the countries of the world. At the same time, engineering innovation has enabled dramatic advances in basic science. Imaging and manufacturing structures at the nanoscales, near-lossless transmission of information, and unprecedented levels of computational power have led to fantastic new discoveries. These types of technologies, for instance, have allowed us to decode the genome, understand the formation of galaxies, and make correlations between social networks and underlying human psychology. In the 21st century, rapid and efficient access to the new innovations, necessary to tackle today's myriad challenges, has become even more imperative. Equally important is the need to educate both those who will be future engineering innovators and those who will use those innovations, deploy them, and make critical legal and political decisions about them.

Engineering has evolved over the years to not only dive deeply into specific fields, but also to seek out solutions to real-world problems by combining concepts from a broad range of scientific inquiries and innovations. For example, robotics is a highly interdisciplinary field that straddles multiple traditional engineering disciplines such as mechanical, electrical, and materials engineering and computer science. While roboticists have traditionally been trained in specific engineering disciplines, next generation roboticists must tackle large complex systems comprising multiple parts that span myriad disciplines—from the mechanical underpinnings of the physical device, to electronic control, materials properties, and high-level algorithms—all of which must work in concert to achieve broad-level objectives while adhering to numerous constraints. Alternative energy is another growing and immensely important field that requires integration of solutions across a wide range of science and engineering disciplines. Topics range from understanding the inherent properties of materials and devices that harness the sun's rays to thinking about challenges associated with large-scale production and distribution of electricity and addressing both the societal and environmental impacts of new technologies. The Engineering Sciences concentration is ideally positioned to provide students with both the breadth and depth of study needed to excel in these and other exciting integrative areas of engineering within the liberal arts setting of Harvard.

Harvard offers two degrees in Engineering Sciences: the Bachelor of Arts (AB) and the Bachelor of Science (SB). The degree requirements differ for each of these programs: the AB program requires between 14 and 16 courses (56-64 credits) and the SB program requires 20 courses (80 credits). Students in the Engineering Sciences AB program specialize in one of four engineering tracks: biomedical sciences and engineering, electrical and computer engineering, engineering physics, or mechanical and materials science and engineering. Students interested in an AB degree may also consider the Biomedical Engineering concentration and the Environmental Science and Engineering concentration, which are also listed in this publication. Students pursuing the SB degree in the Engineering Sciences concentration typically specialize in one of two tracks: bioengineering or environmental science and engineering. Students interested in an SB degree specializing in Electrical Engineering or Mechanical Engineering should refer directly to those concentrations, which are also listed in this publication. Students may also apply to a cross-disciplinary track within the Engineering Sciences SB program, which provides the opportunity to learn between or across traditional engineering areas.

The SB degree program requires a minimum of 20 courses (80 credits). The curriculum is structured with advanced courses building on the knowledge acquired in math, science, and introductory engineering science courses. Concentrators are encouraged to complete the common prerequisite course sequence in their first two years at Harvard. This includes Math (through 1a and 1b; plus 21a and 21b, 22a and 22b, 23a and 23b, or Applied Mathematics 21a and 21b, or 22a and 22b), Physics (through Applied Physics 50a and 50b, Physical Sciences 12a and 12b, or Physics 15a and 15b), and Computer Science 50. Students are cautioned that it is more important to derive a solid understanding of these basic subjects than to complete them quickly without thorough knowledge; this material is extensively used in many subsequent courses. If in doubt, it may be wise to enroll in the Math 1 sequence rather than proceed to Math 21a or 23a with marginal preparation.

The SB and AB degree programs in Engineering Sciences share many course requirements, and there is some flexibility in moving between these programs. To get an early sample of engineering coursework, entering students are invited to enroll in Environmental Science and Engineering 6 (Environmental Science and Engineering), Engineering Sciences 50 (Electrical Engineering), Engineering Sciences 51 (Mechanical Engineering), and Engineering Sciences 53 (Biomedical Engineering). These introductory courses have minimal prerequisites with extensive hands-on laboratory sections and have been very popular with prospective engineering concentrators.

The Engineering Sciences program seeks to educate future leaders that have the technical background necessary to develop and critically evaluate the next wave of engineering innovations; to apply these innovations to important global and local problems; and to make informed decisions about them in a societal context.

*Upon graduation, students in the Engineering Sciences AB concentration should demonstrate the following student outcomes:*

- Quantitative problem-solving skills based in the fundamentals of mathematics, basic sciences, engineering sciences, and engineering design.
- The ability to apply engineering principles to problems in a range of fields and with important societal, economic, and environmental impacts.
- The ability to communicate technical information clearly and efficiently through written, visual, or oral presentations.

*Upon graduation, students in the Engineering Sciences SB concentration should demonstrate the following student outcomes:*

1. An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.
2. An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.
3. An ability to communicate effectively with a range of audiences.
4. An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgements, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.
5. An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environmental, establish goals, plan tasks, and meet objectives.
6. An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgement to draw conclusions.
7. An ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

**OPTIONS**
**1. Bachelor of Arts in Engineering Sciences**

- Biomedical Sciences and Engineering
- Electrical and Computer Engineering
- Engineering Physics
- Mechanical and Materials Science and Engineering

**2. Bachelor of Science in Engineering Sciences**

- Bioengineering
- Environmental Science and Engineering
- Cross-disciplinary

**REQUIREMENTS**
**Bachelor of Arts (AB) in Engineering Sciences: 14-16 courses (56-64 credits)**

1. *Required courses for all tracks:*
    1. *Mathematics (four courses)*: Mathematics 1a and 1b; Applied Mathematics 21a and 21b, Applied Mathematics 22a and 22b, Mathematics 21a and 21b, Mathematics 22a and 22b, Mathematics 23a and 23b, or higher levels.

2. *Physics (two courses)*: Applied Physics 50a, Physical Sciences 12a, or Physics 15a or 16; and Applied Physics 50b, Physical Sciences 12b, or Physics 15b. Appropriate advanced-level physics courses may also fulfill this requirement (please consult with SEAS advisers).
3. *Computer Science (one course)*: Computer Science 50, 51, or 61.

2. Tracks:
    1. *Biomedical Sciences and Engineering – Mechanical Subtrack, Electrical Subtrack, and Chemical and Materials Subtrack:*
        1. *Required for all Subtracks (three courses):*
            1. Engineering Sciences 53 and Biomedical Engineering 110
            2. Life Sciences 1a
        2. *Required for Mechanical Subtrack (four courses):*
            1. Engineering Sciences 120, 123, and 181
            2. Either Engineering Sciences 54 or 153
        3. *Required for Electrical Subtrack (four courses):*
            1. Engineering Sciences 150
            2. Circuits: Select Engineering Sciences 54 or 153, or both of Engineering Sciences 152 and Computer Science 141
            3. To reach 4 courses for the Subtrack, select 1-2 courses from: Biomedical Engineering 128, 129, 130, Engineering Sciences 157 (formerly 155)
        4. *Required for Chemical and Materials Subtrack (four courses):*
            1. Engineering Sciences 123, 112 or 181, and Biomedical Engineering 191 (preferred) or Engineering Sciences 190
            2. Physical Sciences 1
        5. *Approved Electives (two courses):*
            1. Engineering Sciences 51, 91r (one term only), 120, 123, 128, 181,190, 211, 220, 221, 228, 240
            2. Biomedical Engineering 121, 125, 128, 129, 130, 160, 191
            3. Either Applied Mathematics 101 or Engineering Sciences 150
            4. One from Engineering Sciences 54, 153, or 154
            5. Physics 136, 140, 143a, 151, 153
            6. One from Physical Sciences 1, Chemistry 17 or 20
            7. Applied Mathematics 104 or 105
    2. *Electrical and Computer Engineering:*
        1. *Required (five courses):*
            1. Engineering Sciences 150, 152, 155, and 156, and Computer Science 141
        2. *Approved Electives (four courses):*
            1. Engineering Sciences 51, 53, 91r (one term only), 120, 121, 123, 159, 173, 175, 177, 181, 183, 190
            2. Computer Science 51, 141, 143, 144r, 146, 148, 175
            3. Applied Mathematics 104, 105, 108
            4. Applied Physics 195
            5. Chemistry 160
            6. Physics 143a, 153
    3. *Engineering Physics – Materials, Optoelectronics, and Photonics Subtrack and Earth and Planetary Physics Subtrack:*
        1. *Required for all Subtracks (four courses):*
            1. One from Applied Mathematics 104, 105, 108, Engineering Sciences 111
            2. Engineering Sciences 190
            3. Either Engineering Sciences 181 or Physics 181
            4. Either Physics 143a or Chemistry 160
        2. *Required for Materials, Optoelectronics, and Photonics Subtrack (three courses):*
            1. Engineering Sciences 173 and 177
            2. Either Applied Physics 195 or Engineering Sciences 120
        3. *Required for Earth and Planetary Physics Subtrack (three courses)*
            1. One from Earth and Planetary Sciences 121, Astronomy 110, 189
            2. One from Engineering Sciences 120, Earth and Planetary Sciences 161, 166, 171
            3. One from Engineering Sciences 123, Environmental Science and Engineering 131, 132, 162
        4. *Approved Electives (two courses):*
            1. Physics 140, 153, 175

2. Earth and Planetary Sciences 161, 166, 171
3. Astronomy 110, 189
4. Applied Physics 195
5. Applied Mathematics 104, 105, 108, 120
6. Environmental Science and Engineering 131, 132, 162
7. Engineering Sciences 51, 53, 91r (one term only), 111, 115, 120, 123, 125, 128, 153, 173, 175, 177

4. *Mechanical and Materials Science and Engineering*
    1. *Required (seven courses):*
        1. Engineering Sciences 120, 123, 125, 181, and 190
        2. One from Applied Mathematics 104, 105, 120, Engineering Sciences 111
        3. One from Engineering Sciences 54 or 153, or both of Engineering Sciences 152 and Computer Science 141 (If both ES 152 and CS 141 are taken, the second course can count as an elective below.
    2. *Approved Electives (two courses):*
        1. Biomedical Engineering 110
        2. Computer Science 141
        3. Engineering Sciences 51, 53, 54, 91r (one term only), 96, 128, 151, 152, 156, 159, 173, 175, 177
        4. Environmental Science & Engineering 131, 132, 162
        5. Applied Physics 195
        6. Chemistry 160
        7. Physics 143a

3. *Sophomore Forum*: Sophomore year. Non-credit. Spring term.
4. *General Examination*: None.
5. *Thesis*: Required for recommendations of high honors and highest honors, and for joint concentrators.
6. *Other information:*
    1. Advanced Placement credit in Math 1a or 1b can be included in satisfying the requirement of 16 courses, thus potentially reducing the number of required courses to 14 or 15. Credit for additional courses such as Math 21a or 21b does not further reduce the number of required courses. Moreover, in cases when a course can satisfy both an elective and a requirement of a track, the total number of courses is not reduced. In these cases, additional electives must be taken.
    2. By prior petition and approval, other advanced undergraduate or graduate courses, as well as courses at MIT, can be used to satisfy general requirements and track requirements and electives. Electives alternative to those listed in the tracks may be counted for credit upon prior petition and approval. Petitions will only be considered for courses that possess engineering content at a level similar to other technical engineering courses at SEAS.
    3. Engineering Sciences 50, 51, and 53, Environmental Science and Engineering 6: No more than two of these courses may count toward concentration credit. Engineering Sciences 50, and 53, and Environmental Science and Engineering 6 can only count as an engineering elective when taken during the freshman or sophomore year.
    4. Only one of ES 91r (4 credits) or ES 91hfr (4 credits) can count as an approved elective in the degree requirements.
    5. *Pass/Fail or Sat/Unsat*: None of the courses used to satisfy concentration requirements may be taken Pass/Fail or Sat/Unsat.
    6. *Plan of Study*: Concentrators are required to file an approved departmental Plan of Study and to keep their plan up to date in subsequent years. Plan of Study forms may be obtained from the Office of Academic Programs (Pierce Hall 110) or from the School of Engineering and Applied Sciences (SEAS) website.
    7. *Joint concentrations*: The Engineering Sciences AB program participates in joint concentrations (though the Engineering Sciences SB program does not participate in joint concentrations). The requirements for joint concentrators are the same as for sole concentrators; in addition, a joint concentrator is required to write an interdisciplinary thesis that combines the two fields. This thesis is required regardless of whether Engineering Sciences AB is the primary or allied concentration.
    8. Any exceptions to these policies must be approved via written petition.

**Bachelor of Science (SB) in Engineering Sciences: 20 courses (80 credits)**

Prospective concentrators are encouraged to make early contact with concentration representatives. Students wishing to enter the concentration must obtain the appropriate Engineering Sciences SB plan of study and related instructions for their intended Track from the Office of Academic Programs (Pierce Hall 110) or on the SEAS website (Bioengineering Track or Environmental Science and Engineering Track) and review materials before meeting with an Assistant/Associate Director or the Director of Undergraduate Studies. Students should be aware that the Engineering Sciences SB degree is more demanding than typical AB degrees, requiring 20 courses (80 credits).

Students typically follow specific guidelines provided for one of two tracks: Bioengineering or Environmental Science and Engineering. Students interested in an SB degree specializing in Electrical Engineering or Mechanical Engineering should refer directly to those concentrations. Students may also apply to a cross-disciplinary track in their junior or senior years, which provides the opportunity to learn between or across traditional engineering areas.

In addition to the courses listed specifically below, other relevant and/or advanced courses may be approved by petition in the context of a particular plan of study. A petition must propound in writing a coherent and persuasive argument for the intellectual merit of the proposal in question.

1. *Required courses for all tracks:*
    1. *Mathematics/Probability and Statistics/Applied Mathematics (four courses):*
        1. Mathematics 1a and b; and Applied Mathematics 21a and 21b, Applied Mathematics 22a and 22b, Mathematics 21a and 21b, Mathematics 22a and 22b, or Mathematics 23a and 23b. (Note: Students who start in Mathematics 1a will not be required to satisfy either the probability and statistics requirement or the applied math requirement. Students who start in Mathematics 1b must take a course that satisfies the probability and statistics requirement. Students who start in Mathematics 21a, 22a, 23a, or Applied Mathematics 21a or 22a must complete the courses in both probability and statistics and applied mathematics.)
        2. Probability and Statistics (one course): At least one of Applied Mathematics 101, Engineering Sciences 150, or Statistics 110 (if starting in Mathematics 1b, 21a, 22a, or 23a, or Applied Mathematics 21a or 22a). Please note that ES 150 is preferred for students pursuing the Electrical Subtrack of the Bioengineering Track.
        3. Applied Mathematics (one course): At least one of Applied Mathematics 104, 105, 106, or 107 (if starting in Mathematics 21a or 23a or Applied Mathematics 21a).
    2. *Physics (two courses)*: Applied Physics 50a, Physical Sciences 12a, Physics 15a or 16; Applied Physics 50b, Physical Sciences 12b, or Physics 15b. Appropriate advanced-level physics courses may also fulfill this requirement (please consult with SEAS advisers).
    3. *Computer Science (one course)*: Computer Science 50, 51, or 61.
    4. *Engineering design (two courses)*: Engineering Sciences 96 (or 227 for Bioengineering track) and Engineering Sciences 100hf (see item 4 below). Engineering Sciences 96 (or 227 for Bioengineering track) must in taken in junior year, prior to ES 100hf.
2. *Tracks*
    1. Bioengineering – Mechanical Subtrack, Electrical Subtrack, and Chemical and Materials Subtrack
        1. *Required for all Subtracks (five courses)*
            1. Engineering Sciences 53, Biomedical Engineering 110
            2. Engineering Electives (three courses): Three courses from the list in item 7 (any area), with at least two at the 100 or 200 level.
        2. *Required for Mechanical Subtrack*
            1. Biology and/or Chemistry (two courses): Two of the following: Life Sciences 1a or Life and Physical Sciences A, Life Sciences 1b, Physical Sciences 1, Physical Sciences 10, Physical Sciences 11, and, by approval, other relevant introductory courses in biology or chemistry (please consult with SEAS advisers).
            2. Mechanical core (four courses): Engineering Sciences 120, 123, 181, and Engineering Sciences 190 or Biomedical Engineering 191 (preferred).
        3. *Required for Electrical Subtrack*
            1. Biology and/or Chemistry (two courses): Two of the following: Life Sciences 1a or Life and Physical Sciences A, Life Sciences 1b, Physical Sciences 1, Physical Sciences 10, Physical Sciences 11, and, by approval, other relevant introductory courses in biology or chemistry (please consult with SEAS advisers).
            2. Electrical core (four courses):

1. Circuits: Engineering Sciences 54 or 153, or both of Engineering Sciences 152 and Computer Science 141 (If both ES 152 and CS 141 are taken, the second course can count as the Electrical Engineering elective below.)
2. At least two courses from: Biomedical Engineering 128, 129, 130, Engineering Sciences 157 (formerly 155)
3. Up to one additional Electrical Engineering elective to reach 4 courses for the Electrical core

4. *Required for Chemical and Materials Subtrack*
    1. Biology and/or Chemistry (one course): Life Sciences 1a or Life and Physical Sciences A, Life Sciences 1b, Physical Sciences 1, Physical Sciences 10, Physical Sciences 11, and, by approval, other relevant introductory courses in biology or chemistry (please consult with SEAS advisers).
    2. Organic Chemistry (one course): Chemistry 17 or 20.
    3. Chemical & Materials core (four courses): Engineering Sciences 123, Biomedical Engineering 121 or 125, Engineering Sciences 112 or 181, and Engineering Sciences 190 or Biomedical Engineering 191 (preferred).

2. *Environmental Science and Engineering*
    1. *Chemistry (two courses)*: Two from: Physical Sciences 11 (preferred) or Physical Sciences 1; Life Sciences 1a or Life and Physical Sciences A; Physical Sciences 10; Chemistry 17 or 20.
        1. Note: Students should be aware that many upper-level courses in the Environmental Science and Engineering track have Physical Sciences 1 or 11 as a prerequisite.
    2. *Environmental Science and Engineering core (five courses):*
        1. Environmental Science and Engineering 6
        2. Select four from Environmental Science and Engineering 109, 130, 131, 132, 133, 136, 160, 161, 162, 163, 166, 169, Engineering Sciences 112, 123
        3. Engineering breadth (three courses): One upper-level (>100) course from each of the following depth areas (see item 7 below):
            1. Mechanics and Materials
            2. Electrical
            3. Engineering Physics and Chemistry
        4. Engineering electives (one course): At least one course from the list in item 7 (any area).
3. *Cross-disciplinary*
    1. Biology and/or Chemistry (two courses): Two of the following: Life Sciences 1a or Life and Physical Sciences A; Life Sciences 1b, Physical Sciences 1 or 11; Physical Sciences 10; and, by approval, other relevant introductory courses in biology or chemistry (please consult with SEAS advisers).
    2. Engineering depth (three courses): At least three courses from one area of engineering sciences (see item 7 below).
    3. Engineering breadth (three courses): At least three courses from three other areas of engineering sciences (see item 7 below).
    4. Engineering electives (three courses): At least three courses in engineering sciences or relevant related fields with engineering topics (see items 7 below),

3. *Sophomore Forum*: Sophomore year. Non-credit. Spring term
4. *Tutorial*: Required. Engineering Sciences 100hf.
5. *Thesis*: Required. An individual engineering design project is an essential element of every SB program and is undertaken during the senior year as part of Engineering Sciences 100hf. Faculty-supervised reading and research is an important aspect of this requirement.
6. *General Examination*: None.
7. Engineering Sciences courses organized by area:
    1. Biomedical: Engineering Sciences 53, 211, 221, 227, 228, Biomedical Engineering 110, 121, 125, 128, 129, 130, 191
    2. Computer: Computer Science 51, 61, 124, 141, 143, 144r, 146, 148, 175, 179, 181, 182, 183, 187, 189r
    3. Electrical: Engineering Sciences 50, 54, 143, 151, 152, 153, 154, 155, 156, 157 (formerly 155), 158, 159, 170, 173, 175, 176, 177, Computer Science 141, 143, 144r, 146, 148, 189r
    4. Engineering Physics and Chemistry: Engineering Sciences 112, 170, 173, 181, 190
    5. Environmental: Environmental Science and Engineering 6, 109, 130, 131, 132, 133, 136, 160, 161, 162, 163, 166, 169, Engineering Sciences 112, 123

6. Mechanics and Materials: Engineering Sciences 51, 120, 123, 125, 128, 181, 183, 190, 192

8. *Note*: Students entering Harvard with secondary school preparation that places them beyond the level of any of the required courses listed above may substitute appropriate advanced level courses. However, ABET accreditation requires that all students complete at least 8 courses in math and science and 12 courses in engineering topics. Students who start in Math Ma will need to take 21 courses in order to fulfill the degree requirements. Given the number and complexity of the requirements, students interested in pursuing engineering should consult with the Director or Assistant/Associate Director of Undergraduate Studies about their plans of study as early as possible.
9. *Other Information:*
    1. By prior petition and approval, other advanced undergraduate or graduate courses, as well as courses at MIT, can be used to satisfy general requirements and track requirements and electives. Petitions will only be considered for courses that possess engineering content at a level similar to other technical engineering courses at SEAS.
    2. Engineering Sciences 50, 51, and 53, Environmental Science and Engineering 6: No more than two of these courses may count towards concentration credit. Engineering Sciences 50, 53, and Environmental Science and Engineering 6 can only count as an engineering elective when taken during the freshman or sophomore year.
    3. Only one of ES 91r (4 credits) or ES 91hfr (4 credits) can count as an approved elective in the degree requirements.
    4. *Pass/Fail or Sat/Unsat*: None of the courses used to satisfy the concentration requirements may be taken Pass/Fail or Sat/Unsat.
    5. *Plan of Study*: Students entering the concentration must file an Engineering Sciences SB plan of study and present an intellectually coherent plan in consultation with an Assistant/Associate Director or the Director of Undergraduate Studies. Subsequent modifications to the plan must be reviewed by a relevant Assistant/Associate Director of Undergraduate Studies.
    6. *Cross-Disciplinary Track Requirements*: Admission to the cross-disciplinary track is by application. To apply to the track, students must have at least a 3.5 College grade point average at the time of application. Applications can be submitted no earlier than the end of sophomore year, and no later than the fifth Monday of the student's seventh semester.
    7. *Additional Terms*: Concentrators who wish to remain beyond the end of the second term of their senior year to complete the SB requirements must be approved to do so by the Undergraduate Engineering Committee. A written petition is required and should always be submitted as early as possible and under discussion with the Assistant/Associate Director of Undergraduate Studies or Director of Undergraduate Studies. Petitions can be submitted no later than January 15 between the student's fifth and sixth terms (i.e., middle of junior year), or August 15 between the student's fifth and sixth terms if the student's fifth term is the spring. Under no circumstances will the Committee grant a student permission for more than two additional terms. Petitions are only granted in exceptional cases, and only to meet specific SB degree requirements. More information can be found on the SEAS website for the Bioengineering Track or Environmental Science and Engineering Track.
    8. *Joint Concentrations*. The Engineering Sciences SB program does not participate in joint concentrations.
    9. Any exceptions to these policies must be approved via written petition.

**ADVISING**

Students interested in concentrating in Engineering Sciences should discuss their plans with the Director of Undergraduate Studies, the Assistant/Associate Director of Undergraduate Studies, or the Undergraduate Academic Programs Manager. Each undergraduate who elects to concentrate in Engineering Sciences is assigned a faculty adviser depending on the student's track. The faculty adviser might also be a member of the Undergraduate Engineering Committee, whose members have the responsibility for reviewing departmental Plans of Study. If students do not request a change in adviser, they have the same adviser until they graduate. Each student is reassigned to another faculty member while the original faculty adviser is on leave. It is expected that students will discuss their Plans of Study and progress with their Director of Undergraduate Studies or Assistant/Associate Director of Undergraduate Studies at the beginning of each term. Students may also seek advice from their faculty adviser, the Director of Undergraduate Studies, the Assistant/Associate Director of Undergraduate Studies, or the Academic Programs Manager at any time.

**HOW TO FIND OUT MORE**

Further information is available from the Director of Undergraduate Studies in Engineering Sciences, es-dus@seas.harvard.edu; or the relevant Assistant/Associate Director of Undergraduate Studies: for Mechanical and Materials Science and Engineering and Electrical and Computer Engineering, Dr. Christopher Lombardo (lombardo@seas.harvard.edu); for Bioengineering, Dr. Linsey Moyer (lmoyer@seas.harvard.edu); for Environmental Science and Engineering, TBD (TBD email). Students can also contact the SEAS Undergraduate Academic Programs Manager, Kathy Lovell (klovell@seas.harvard.edu).

**ENROLLMENT STATISTICS**
**Number of Concentrators as of December**

| Concentrators | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Engineering Sciences | 110 | 145 | 148 | 165 | 147 | 111 | 98 | 99 | 112 | 107 | 89 | 88 |
| Engineering Sciences + another field | 2 | 1 | 5 | 4 | 6 | 2 | 4 | 3 | 1 | 1 | 7 | 6 |
| Another field + Engineering Sciences | 1 | 1 | 0 | 0 | 0 | 3 | 3 | 5 | 8 | 2 | 2 | 2 |

# English

**Stephanie Burt, Director of Undergraduate Studies**
**Leah Whittington, Associate Director of Undergraduate Studies**
**Beth Blum, Associate Director of Undergraduate Studies**

Humans use stories to cope and thrive, from prehistoric cave paintings to distilling experience in novels, screenplays, and hip hop rhymes. By studying English literature, you will learn how to analyze and appreciate the language of the past and to contribute to the narrative of the future. You will develop expertise in interpreting others' rhetoric and learn to communicate meaningfully yourself, skills that are more crucial than ever with the explosion of online forms of textual exchange. In addition, you will be exposed to the dazzling imaginary worlds that have brought readers and writers together across vast expanses of space and time.

The path through English normally begins with the Gateway Course, English 10: Literature Today. This wide-ranging lecture course, exploring writing since the year 2000, is geared particularly towards students in their first or second years as an introduction to English literary study at Harvard. The course focuses on work by contemporary writers from around the world and speaks directly to today's urgent problems—exclusionary and divisive politics, economic disruption, technological innovation, social alienation, racism, misogyny, colonialism.

Our two Common Courses, normally completed by the end of sophomore year, give students the tools they need to succeed in the concentration. English 20: Literary Forms, introduces the concepts of style, form, and genre, exploring how writers use literary language to address personal and societal concerns and challenges. English 97: Sophomore Tutorial: Literary Methods, looks at the questions that arise when we make the written word an object of study. What is the secret power of literary interpretation? How do our personal histories inform encounters with literature? How do critical race theory, psychology, gender studies, linguistics, political science, philosophy, and more alter our approach to reading and writing? Together, the Gateway and Common Courses provide a shared foundation for literary study among each year's cohort of students.

Junior tutorials, required of all concentrators, let students define their own areas of study and produce original research on that topic. Through additional electives, students pursue a range of topics and approaches, always exploring how literature reflects and changes the world. Among their electives,

concentrators must include three courses focused on literary periods (pre-1700, 1700–1900, and 1900–2000), which provide students the historical knowledge essential to understanding literature's transformations. In studying historical literatures, students learn how each literary period struggles to find new expressions to fit its contemporary moment by building on earlier innovations and styles. Most elective courses meet one of these period requirements.

Through their coursework, students will acquire knowledge of:

- the global breadth and historical depth of writing in English;
- some of the myriad bodies of imaginative writing produced in the English language, in its many and proliferating forms, across space and time;
- the roles of genres, intellectual traditions and media, and of the cultural forces of privilege, oppression, and marginalization, in shaping literary production;
- the history of English studies as a field, and what is at stake in that history.

English concentrators can pursue either the Honors Program or the Elective Program. Students in the Honors Program write a two-semester senior honors thesis or a one-semester senior project. In either format, students may investigate a critical topic or produce creative work. Professors in the English faculty direct all theses or projects. The Elective Program omits the senior project or thesis. A third option, for honors candidates only, is a joint concentration, which culminates in a thesis supervised by faculty in English and one other department. All honors candidates must have a concentration grade point average of 3.40 or higher and of 3.60 or higher for the joint concentration.

We offer a wide array of creative writing workshops in poetry, fiction, and nonfiction, as well as work for screen, stage, and other media. Our workshops are small, providing writers an opportunity to focus intensively on one genre. All undergraduates may apply for admission to creative writing workshops, though preference is given to English concentrators.

A degree in English prepares students for any field that values clear expression, careful reading, critical thinking, and persuasive writing. Our concentrators go on to careers in media and publishing, as novelists, journalists, playwrights, and poets, as well as to careers in law, education, business, medicine, politics, and many other fields. They will enter those fields confident in their ability to:

- speak and write persuasively and with nuance in one or more literary genres, including the genres of non-fiction;
- enjoy literary texts aesthetically (in the body) and philosophically (in the mind);
- analyze texts from stylistic, generic, contextual, and theoretical perspectives;
- understand the difference between good and bad arguments;
- conduct research and present it lucidly in oral and written forms;
- read, perform, and write literary texts with a trained awareness of how they at once shape and are shaped by the societies in which they are written and received.

We commit ourselves to helping students immerse themselves in the literary worlds they know and love, discover new worlds they might not think to explore, acquire the means to find their own paths, and sustain themselves on their intellectual and creative journeys.

The requirements detailed below apply to students declaring a concentration in English beginning in academic year 2020-21. Students declaring the concentration prior to 2020-21 should consult the relevant archived version of the *Handbook for Students* and contact the department for further information.

**REQUIREMENTS**
**Honors Program: 14 courses (56 credits)**

1. *Required Courses and Tutorials – 4 courses*
    1. English 10: Literature Today
    2. English 20: Literary Forms
    3. English 97: Sophomore Tutorial: Literary Methods
    4. English 98r: Junior Tutorial
2. *Electives – 8 or 9 courses*
    1. One must primarily address texts written before 1700 (see 4.2)
    2. One must primarily address texts written between 1700 and 1900 (see 4.2)
    3. One must primarily address texts written between 1900 and 2000 (see 4.2)

4. Two may be creative writing workshops (see 4.3)
5. One may be a related course from outside the English Department (see 4.4)
6. *Note:* A student writing a two-semester senior thesis completes 8 electives. A student writing a one-semester senior project completes 9 electives.

3. *Senior Thesis or Senior Project* – 1 or 2 courses
    1. The Senior Thesis: The two-term senior tutorial, English 99r, culminates in an honors thesis. Students may investigate any critical or research question in literary studies, or may write an imaginative work in any creative genre. Theses are by application during the junior year. Students applying to write a creative thesis should have taken at least one course in creative writing by the middle of their junior year. Thesis applicants may be asked to propose a senior project in its place.
    2. The Senior Project: Students may instead complete a senior project in the fall semester. Senior projects may resemble senior theses, but on a smaller scale, or may explore more public-facing forms of writing. Students who choose this option will be eligible to receive a departmental degree recommendation of “honors” or “high honors.”
4. *Other Information*
    1. *Grading Basis and Concentration Grade Point Average*: All letter-graded courses taught by English department faculty will count for the concentration grade point average. Courses counting for concentration credit must be taken for a letter grade. The only exceptions are the senior thesis tutorial and one Freshman Seminar, if taught by a member of the English department faculty, which are graded SAT/UNS.
    2. *Historical Period Requirements*: Courses meeting these requirements introduce students to the variety of writers and genres that make up the 1300-year tradition of literature in English.
    3. *Creative Writing Courses:* Admission to creative writing courses is by application only. No more than two creative writing courses may count toward the total number of required courses for the concentration. Students may apply to and enroll in as many as their plan of study can accommodate.
    4. *Related Course:* Students may petition to count one related course (ordinarily from other humanities departments) as an English elective.
    5. *Oral Examination for Highest Departmental Honors*: To qualify for a departmental degree recommendation of highest honors, all eligible senior honors concentrators must take an oral examination during reading period of their final term. Eligibility is determined by concentration grade point average and thesis grades, explained in detail on the department’s website.

**Elective Program: 12 courses (48 credits)**

1. *Required Courses and Tutorials – 4 courses*
    1. English 10: Literature Today
    2. English 20: Literary Forms
    3. English 97: Sophomore Tutorial: Literary Methods
    4. English 98r: Junior Tutorial
2. *Electives – 8 courses*
    1. One must primarily address texts written before 1700 (see 4.2)
    2. One must primarily address texts written between 1700 and 1900 (see 4.2)
    3. One must primarily address texts written between 1900 and 2000 (see 4.2)
    4. Two may be creative writing workshops (see 4.3)
    5. One may be a related course from outside the English Department (see 4.4)
3. *Thesis* – None
4. *Other Information*
    1. *Grading Basis and Concentration Grade Point Average*: All letter-graded courses taught by English department faculty will count for the concentration grade point average. Courses counting for concentration credit must be taken for a letter grade. The only exception is one Freshman Seminar, if taught by a member of the English department faculty, which is graded SAT/UNS.
    2. *Historical Period Requirements*: Courses meeting this requirement introduce students to the variety of writers and genres that make up the 1300-year tradition of literature in English.
    3. *Creative Writing Courses:* Admission to creative writing courses is by application only. No more than two creative writing courses may count toward the total number of required courses for the concentration. Students may apply to and enroll in as many as their plan of study can accommodate.
    4. *Related Course*: Students may petition to count one related course (ordinarily from other

humanities departments) as an English elective.

**Joint Concentration: 7 or 9 courses (28 or 36 credits) in English**
Upon approval from the Director of Undergraduate Studies, honors candidates may combine a concentration in English with a concentration in another department, supervised by advisers in each department. Joint concentrators may declare English to be either their primary or allied concentration; the requirements are the same for both, with the exception of the thesis tutorial (99r), which is listed in the primary concentration. Ordinarily, only students with a concentration GPA of 3.60 or above, an overall strong record, and a clearly formulated project across two disciplines will receive approval. A joint senior thesis is required.

1. *Required Courses and Tutorials – 4 courses*
    1. English 10: Literature Today
    2. English 20: Literary Forms
    3. English 97: Sophomore Tutorial: Literary Methods
    4. English 98r: Junior Tutorial
2. *Electives – 3 courses*
    1. One must primarily address texts written before 1700 (see 4.2)
    2. One must primarily address texts written between 1700 and 1900 (see 4.2)
    3. One must primarily address texts written between 1900 and 2000 (see 4.2)
3. *Senior Thesis – 0 or 2 courses*
    1. The Senior Thesis: The two-term senior tutorial, English 99r, culminates in an honors thesis and are by application during the junior year. Students may investigate any critical or research question in literary studies, or may write an imaginative work in any creative genre. Students applying to write a creative thesis should have taken at least one course in creative writing by the middle of their junior year.
    2. *Note*: If English is the allied field, the senior tutorial is taken in the primary concentration and the student does not enroll in English 99r.
4. *Other Information*
    1. *Grading Basis and Concentration Grade Point Average*: All letter-graded courses taught by English department faculty will count for the concentration grade point average. Courses counting for concentration credit must be taken for a letter grade. The only exceptions are the senior thesis tutorial and one Freshman Seminar, if taught by a member of the English department faculty, which are graded SAT/UNS.
    2. *Historical Period Requirements*: Courses meeting these requirements introduce students to the variety of writers and genres that make up the 1300-year tradition of literature in English.
    3. *Creative Writing Courses*: Admission to creative writing courses is by application only. Students may apply to and enroll in as many as their plan of study can accommodate.
    4. *Oral Examination for Highest Departmental Honors*: To qualify for a departmental degree recommendation of highest honors, all eligible senior honors concentrators must take an oral examination during reading period of their final term. Eligibility is determined by concentration grade point average and thesis grades, explained in detail on the department's website.

The requirements outlined above are intended for students declaring a concentration in English beginning in academic year 2020-21. Detailed requirements for students

**ADVISING**
The English Department is committed to providing high quality advising to undergraduate concentrators, prospective concentrators, and any Harvard student interested in the study of English literature. Each concentrator is paired with a faculty adviser, with whom students discuss substantive and practical plans of study. All concentrators are encouraged to visit other members of the English faculty during scheduled office hours. The staff of the Undergraduate Program Office is available to discuss specific questions regarding the program.

**RESOURCES**
English concentrators may apply for department-administered awards and fellowships. These range from funds for thesis research to post-graduate scholarships and annual essay, fiction, and poetry prizes.
Odile Harter is the library liaison to the English Department, and is available to answer research questions.
Child Memorial Library, located on the top floor of Widener Library, is the English Department research

library and open to all students. Its extensive, non-circulating collection comprises works from all areas and periods of English and American literature. Maintained and staffed by graduate students, Child Library is dedicated to providing up-to-date, scholarly editions of authors, as well as a cross-section of recent and influential criticism.

**HOW TO FIND OUT MORE**
The Guide for Concentrators, along with all advising worksheets and forms, is available on the department website.
Questions may be directed to the English Department Office at 617-495-2533, or to any member of the staff:

- Stephanie Burt, Director of Undergraduate Studies, burt@fas.harvard.edu
- Leah Whittington, Associate Director of Undergraduate Studies, lwhittington@fas.harvard.edu
- Beth Blum, Associate Director of Undergraduate Studies, bblum@fas.harvard.edu
- Lauren Bimmler, Undergraduate Program Administrator, lbimmler@fas.harvard.edu
- Henry Vega Ortiz, Undergraduate Program Assistant, henryvegaortiz@fas.harvard.edu

**ENROLLMENT STATISTICS**
**Number of Concentrators as of December**

| Concentrators | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| English | 236 | 209 | 197 | 182 | 159 | 153 | 163 | 155 | 144 | 144 | 130 | 116 |
| English + another field | 6 | 6 | 4 | 4 | 9 | 9 | 8 | 12 | 11 | 9 | 17 | 13 |
| Another field + English | 3 | 3 | 1 | 1 | 4 | 2 | 6 | 4 | 8 | 11 | 12 | 9 |

# Environmental Science and Engineering

**Professor Elsie Sunderland, Director of Undergraduate Studies**
**Dr. Patrick Ulrich, Acting Assistant Director of Undergraduate Studies**

Environmental Science and Engineering (ESE) is an interdisciplinary program with the goal of understanding, predicting, and responding to natural and human-induced environmental change. Addressing environmental issues such as global warming, stratospheric ozone depletion, or local and regional air and water pollution requires perspectives from a diverse set of scientific disciplines including atmospheric physics and chemistry, oceanography, glaciology, hydrology, geophysics, ecology, and biogeochemistry. This program is structured around the view that the environmental system is comprised of a complex set of chemical, physical, and biological interactions, made even more complicated by the various activities of human society. Through exploration of the underlying processes and feedbacks within the Earth system, and with a range of approaches from theory and modeling to experiments and observations, students are trained to think about environmental processes in an integrated fashion, preparing them to manage the environmental challenges we face.

At its core, Environmental Science and Engineering exemplifies the pursuit of a technical liberal arts degree. In order to better understand and address environmental challenges, environmental scientists and engineers draw on core knowledge from other closely related fields to develop technical solutions and advance innovations in environmental measurements, modeling, and control. This cross-disciplinary nature is reflected in the fact that many of Harvard's ESE faculty are jointly appointed or affiliated in other Schools or departments in FAS. The liberal arts nature of the discipline is reflected in the flexible degree requirements of the concentration. Students have the intellectual freedom to select a program that provides fundamentals in ESE that are aligned with their specific interests. Working closely with their concentration advisers, students develop a plan of study consisting of core courses from within the ESE program and approved electives from the closely related fields like Earth and Planetary Sciences, Integrative Biology, and other engineering disciplines and natural sciences to best support their individual academic goals.

The AB degree consists of 14 courses (56 credits). Concentrators study the fundamental processes underlying environmental systems, including atmospheric sciences and climate dynamics; pollution of our air, water, and soil; and the development of sustainable energy systems. Throughout their coursework, students learn to apply these principles to understand and model complex environmental problems and to mitigate human impacts on the environment. In brief, concentrators are required to take a fundamental set of introductory math, physics, and chemistry courses as the foundation of their studies (6 of the 14 required courses). Students also take one foundational course (ESE 6, or one of a small number of appropriate Gen Ed courses by petition) to provide an introduction to the field. The remaining 7 courses are selected from a list of approved electives from across the breadth of the ESE course offerings, as well as related natural sciences. To provide a core foundation in environmental science and engineering, all students will be strongly recommended to take at least one course on environmental physics and at least one course on environmental chemistry. Additionally, 1 of the 5 remaining approved electives must be a course approved to have significant engineering design content, which provides each student with exposure to the design challenge of solving an environmental problem.

**REQUIREMENTS**
**14 courses (56 credits)**

1. *Required courses:*
    1. *Mathematics (two courses)*: Applied Mathematics 21a and 21b, Applied Mathematics 22a and 22b, Mathematics 21a and 21b, Mathematics 22a and 22b, Mathematics 23a and 23b, or higher levels. Students should begin the mathematics sequence according to placement.
    2. *Physics (two courses)*: Physical Sciences 12a, Physics 15a or 16, or Applied Physics 50a; and Physical Sciences 12b, Physics 15b, or Applied Physics 50b
    3. *Chemistry (two courses)*: Select two courses from the following list:
        1. Recommended: Physical Sciences 11 (or Physical Sciences 1, according to placement)
        2. Life Sciences 1a (or Life and Physical Sciences A, according to placement)
        3. Physical Sciences 10
        4. Chemistry 17 or 20
    4. *Environmental Science and Engineering Introductory Course (one course)*: Environmental Science and Engineering 6 (or by petition General Education 1085, 1094, or 1137, or an alternative related General Education course may be substituted).
    5. *Breadth in Environmental Science and Engineering (two courses):*
        1. *Note*: Strongly recommended to select one course on environmental physics and one course on environmental chemistry. With permission from the Director of Undergraduate Studies, alternative ESE courses may be substituted.
        2. One course on environmental physics: Environmental Science and Engineering 129, 131, 132, or 162
        3. One course on environmental chemistry: Environmental Science and Engineering 133 or 163
    6. *Approved Electives (five courses)*: With permission from the Director of Undergraduate Studies, up to two of these five courses can be substituted with relevant, upper-level courses from other areas of natural sciences and engineering.
        1. Environmental Science and Engineering 101, 109, 122, 129, 130, 131, 132, 133, 136, 138, 160, 161, 162, 163, 166, 169
        2. Engineering Sciences 91r (one term), 96, 112, 115, 123, 181, 183
        3. Earth and Planetary Sciences 53, 134, 187
        4. Organismic and Evolutionary Biology 55, 120, 157
2. *Design Experience*: All students must take an approved course with significant design experience as one of their Approved Electives. This requirement may also be satisfied with a design component within a senior thesis, or a design component within an independent research project (ES 91r).
3. *Sophomore Forum*: Sophomore year. Non-credit. Spring term.
4. *Thesis*: A thesis is required for recommendations of high honors and highest honors, and for joint concentrators.
5. *General Examination*: None.
6. *Other Information:*
    1. By prior petition and approval, other advanced undergraduate or graduate courses, as well as courses at MIT, can be used to satisfy general requirements and track requirements and electives. Petitions will only be considered for courses that possess technical content at a level similar to other upper-level engineering courses at SEAS.

2. Only one of ES 91r (4 credits) or ES 91hfr (4 credits) can count as an approved elective in the degree requirements.
3. *Joint Concentrations*: Environmental Science and Engineering participates in joint concentrations. A joint concentrator must fulfill all of the course requirements for the stand-alone degree; in addition, a joint concentrator is required to write an interdisciplinary thesis that combines the two fields. This thesis is required regardless of whether Environmental Science and Engineering is the primary or allied concentration.
4. *Plan of Study*: Concentrators are required to file an approved departmental Plan of Study and to keep their plan up to date in subsequent years. Plan of Study forms may be obtained from the Office of Academic Programs (Pierce Hall 110) or from the School of Engineering and Applied Sciences (SEAS) website.
5. *Pass/Fail and Sat/Unsat*: All courses for concentration credit must be letter-graded.
6. Any exceptions to these policies must be approved via written petition.

**ADVISING**

Students interested in concentrating in Environmental Science and Engineering should discuss their plans with the Director of Undergraduate Studies, Professor Elsie Sunderland, ems@seas.harvard.edu, 617-496-0858; or the Associate Director of Undergraduate Studies, Dr. Patrick Ulrich, pulrich@seas.harvard.edu, 617-496-0542; or the Undergraduate Academic Programs Manager, Kathy Lovell, klovell@seas.harvard.edu, (617) 496-1524.

Each undergraduate who elects to concentrate in Environmental Science and Engineering is assigned a faculty adviser. If students do not request a change in adviser, they have the same adviser until they graduate. Each student is reassigned to another faculty member while the student's original faculty adviser is on leave. It is expected that students will discuss their Plans of Study and progress with their Director or Associate Director of Undergraduate Studies at the beginning of each term. Students may also seek advice from their faculty adviser, the Director or Associate Director of Undergraduate Studies, or the Undergraduate Academic Programs Manager at any time.

**HOW TO FIND OUT MORE**

Further information is available from the Undergraduate Academic Programs Manager in the School of Engineering and Applied Sciences Office of Academic Programs, Pierce Hall 110 (617-495-2833).

**ENROLLMENT STATISTICS**
**Number of Concentrators as of December**

| Concentrators | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|
| Environmental Science and Engineering | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 16 |
| Environmental Science and Engineering + Another field | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 3 |
| Another field + Environmental Science and Engineering | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |

*Environmental Science and Engineering was a new concentration for 2018-19.

# Environmental Science and Public Policy

**Professor N. Michele Hoolbrook, Head Tutor**
www.espp.fas.harvard.edu

The concentration in Environmental Science and Public Policy (ESPP) is designed to provide a multidisciplinary introduction to current problems of the environment. It is founded on the premise that the ability to form rational judgments concerning many of the complex challenges confronting society today involving the environment requires both an understanding of the underlying scientific and technical issues and an appreciation for the relevant economic, political, legal, historical, and ethical dimensions. All students have to satisfy a core of requirements in the physical, biological, and social sciences and mathematics. Depending on preparation, students may be encouraged to substitute more advanced courses for these requirements. In consultation with their concentration adviser, students also develop an individual plan of study for a series of advanced courses around a particular field of specialization. Through their field of specialization, students develop expertise in a particular field of study relating to the environment.*

In the junior year, students take one or more seminars to complement their field of specialization. The seminars are envisaged as a central integrating component of the concentration. The seminars cover a number of current environmental issues, comprehensively and in depth. They are taught by faculty from a number of departments in the Faculty of Arts and Sciences and from several of the professional schools, including the Law School, the School of Public Health, and the Business School. Topics covered change from year to year, but have included policy issues relating to environmental health, renewable energy, conservation and biodiversity, and world food systems and the environment.

In the senior year, students undertake a capstone project in which they conduct an in-depth examination of a particular environmental issue consistent with their field of specialization, applying skills and knowledge gained in their courses and tutorial experiences. For students wishing to be considered for honors, the capstone project consists of a year-long 8-credit course senior thesis, while for non-honors students the typical requirement is a one-course term-paper or equivalent.
The concentration is overseen by a Committee on Degrees functioning as a Board of Tutors including representatives from other departments of the Faculty of Arts and Sciences and from other Schools as appropriate to ensure the requisite breadth of the program.

**To the level that would enable them to pursue graduate level study in the relevant discipline(s) if they choose to do so.*

**REQUIREMENTS**
**Basic Requirements: 13 courses (52 credits)**

1. *Required courses*:
    1. Introductory Course: The introductory course is designed to provide a multi-disciplinary examination of a particular current environmental challenge.
    2. 1 course chosen from:
        1. ESPP 11. Sustainable Development
        2. EPS 50. The Fluid Earth: Oceans, Atmosphere, Climate, and Environment
        3. ESE 6. Introduction to Environmental Science and Engineering
        4. GE 1085 Energy Resources and the Environment
    3. GE 1094. The Climate-Energy Challenge
    4. GE 1137 The Challenge of Human Induced Climate Change: Transitioning to a Post Fossil Fuel Future
2. GE 1085 Energy Resources and the Environment
3. *Physical Sciences*: PS 1 or PS 11 or EPS 135 – 1 course
4. *Mathematics and/or Statistics*: 2 courses Minimum: Math 1a and Math 1b. More advanced courses are encouraged.
5. *Biological Sciences*: OEB 10 or OEB 55 – 1 course
6. *Social Sciences*: ESPP 77 or 78 – 1 course
7. *Economics*: Ec 1661 – 1 course (Depending on a student's background, an additional course in Microeconomics may be required in order to take Economics 1661.)
8. *Advanced Courses*: – 4 courses in the student's field of specialization. At least one course must be

from the social sciences/policy, and at least one course must be chosen from the natural sciences or engineering. One course must be in EPS unless a student has taken EPS 50, ES 6, GE 1085, GE 1094 or GE 1137, as their Introductory Course (see "a" above).
9. *Junior Seminar*: ESPP 90 – 1 course, one course chosen from ESPP 90 junior seminar offerings (consistent with focus field of specialization)
10. *Capstone Project (non-honors)*: ESPP 91r Supervised Reading and Research – 1 course in the capstone project, students conduct an in-depth examination of a particular environmental issue consistent with their field of specialization (the typical requirement is a term-paper or equivalent).
11. *Tutorials*: Junior Year, ESPP 90 seminar required of all concentrators.
12. *Thesis*: None.
13. *General Examination*: None.
14. *Other Information*:
    1. Students must file a concentration plan of study and identify their field of specialization by the end of their sophomore year. The plan of study will be developed in consultation with the student's adviser and will be reviewed and approved by the ESPP Board of Tutors. The plan of study is to be revised and reviewed at the end of the junior year.
    2. *Course Substitutions*. Students interested in substituting a course in place of the above requirements should consult their concentration adviser and submit a petition to the Head Tutor.

**Honors Requirements: 14 courses (56 credits)**

1. *Required courses:*
    1. Same as **Basic Requirements**.
    2. Same as **Basic Requirements**.
    3. Same as **Basic Requirements**.
    4. Same as **Basic Requirements**.
    5. Same as **Basic Requirements**.
    6. Same as **Basic Requirements**.
    7. Same as **Basic Requirements**.
    8. Same as **Basic Requirements**.
    9. **ESPP 99**. Senior Tutorial/Thesis - 2 courses
2. Tutorials:
    1. Junior Year: ESPP 90 Seminar required of all concentrators
    2. Senior Year: ESPP 99 Senior Tutorial/Thesis
3. *Thesis*: Required. Written as part of ESPP 99.
4. *General Examination*: None.
5. *Other Information*: Same as Basic Requirements.

**ADVISING**

At the beginning of the first term of concentration, the Head Tutor assigns each student to one of the faculty members of the ESPP Board of Tutors who will act as their concentration adviser. These assignments are based on the student's interests and their current intended field of specialization.
For many students, their interests and planned field of specialization will evolve over time. We view this evolution as an integral part of the ESPP advising process. If desired, students may be subsequently re-assigned to an adviser more appropriate for the student's developing field of specialization.
Students are expected to meet individually with their adviser at least once each term to discuss their plan of study and their resulting course selections, research opportunities, and other academic matters. However, students are encouraged to meet with their advisers more often throughout the year as their interests and desired field of specialization develops. Students may also seek advice from any member of the Board of Tutors in Environmental Science and Public Policy.

**RESOURCES**

The concentration's physical and administrative home is located in the Harvard University Center for Environment. The Center serves the larger Harvard community and provides a focus for interdisciplinary, cross-faculty research and education. The center draws its strength from faculty members and students from across the University and complements the environmental education and research activities of the community of scholars based in Harvard's academic units. Stewarded by the Faculty of Arts and Sciences, the Center is designed to serve the entire Harvard community by developing and facilitating projects and activities in the areas of environmental education, research, and outreach—adding the value of an integrated, collaborative approach to traditional academic pursuits.

The Center's website www.environment.harvard.edu provides a wealth of information resources, including: an on-line guide to environmental studies; courses; student groups; faculty and researchers; centers at Harvard; and electronic list serves for environmental events. The Center also supports a series of distinguished lectures, colloquia, and other events throughout the calendar year.

**HOW TO FIND OUT MORE**
Additional information may be obtained from the Head Tutor, Professor N. Michele Holbrook (holbrook@oeb.harvard.edu) , or Ms. Lorraine Maffeo, Program Administrator, 26 Oxford Street, Fourth Floor, (617-496-6995, maffeo@fas.harvard.edu), or by visiting www.espp.fas.harvard.edu.

**ENROLLMENT STATISTICS**
**Number of Concentrators as of December**

| Concentrators | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Environmental Science and Public Policy | 52 | 45 | 48 | 40 | 38 | 33 | 36 | 49 | 47 | 48 | 49 | 42 |
| Environmental Science and Public Policy + another field | 2 | 1 | 3 | 5 | 4 | 2 | 3 | 4 | 5 | 5 | 5 | 3 |
| Another field + Environmental Science and Public Policy | 3 | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 4 | 2 | 4 | 7 |

# Folklore and Mythology

**Dr. Lowell Brower, Head Tutor**
**Professor Stephen Mitchell, Chair**

Folklore and Mythology is a liberal education in and of itself. The program encourages the study of any given society through its language and culture, offering an array of choices for drawing on a variety of disciplines in the humanities and social sciences. To focus on the folklore and mythology of a society (at local, regional as well as national levels) is to understand how that group or society defines itself through epics, music, folktales, legends, dramas, dance, rituals, "beliefs," proverbs, customs, law codes, festival celebrations, "wisdom literature," and many other forms of expressive culture. To study the folklore and mythology of any group is to discover how that group identifies itself in relation to others. Concentrators conduct independent research on the material, oral, written, or performed forms of folklore and mythology in a variety of cultures, among them African, North and South American, Celtic, Chinese, English, German, Greek, Indian, Japanese, Scandinavian, and Slavic.

The purpose of the basic courses outlined below is to provide concentrators with a general knowledge of the materials of folklore and mythology, its genres and divisions, and the various kinds of intellectual approaches to the materials that have been, and still are, used to understand and interpret them. The course on fieldwork and ethnography continues this purpose of providing general background by critiquing and applying various anthropological methods of interpreting cultural expressions. In these basic courses and early tutorials, materials from many cultures are used.

The special fields are designed to assure that the concentrator has an in-depth knowledge of folklore and mythology in one given area. There is considerable variation in the special fields administered by the Committee on Degrees in Folklore and Mythology, and the specific requirements vary from field to field. They can be roughly divided between those that are language and literature based and those that are not, such as music or social anthropology. Sample programs for several special fields are available through the Head Tutor's office, but each student should work out the details of the student's own Plan of Study with the Head Tutor or the committee member or members representing the particular special fields.

The tutorials in the second half of the junior year and throughout the senior year are in the special field,

the senior tutorials being either devoted largely to developing a senior thesis, or to a senior project. During the senior year, we expect students concentrating in Folklore and Mythology to demonstrate their command of cultural theory and analysis. All students will complete an analytic or creative Senior Honors Thesis, an extended intellectual project carried out over two semesters as Folklore and Mythology 99, under the supervision of a faculty adviser. While most Senior Honors Theses in Folklore and Mythology take the form of written analyses based on original research, students also have the option to demonstrate their competence through performances, exhibits, or other artistic forms of expression, usually in connection with specific Folklore and Mythology courses (or related courses approved by the Head Tutor.) Students who choose to pursue the analytical thesis option are expected to submit a 40-60 page Senior Thesis. Students who choose to pursue the creative thesis option are expected to present a creative project and an accompanying 15-20 page reflective and analytical essay.

Students interested in concentrating in Folklore and Mythology should make an appointment with the Head Tutor to discuss the concentration and special field interests. Joint concentrations with other fields are possible and students should discuss their interests of combining fields with the Head Tutors or Directors of Undergraduate Studies of both Folklore and Mythology and the allied program.

**REQUIREMENTS**
**14 courses (56 credits)**

1. *Required courses:*
    1. General Education 1097. Tradition, Performance, and Culture.
    2. Folklore and Mythology 97, Folklore and Mythology 98a and b, and Folklore and Mythology 99 (two terms). See item 2 below.
    3. One Folklore and Mythology seminar: One approved seminar-style course from among the Folklore and Mythology offerings.
    4. Five courses in a special field to be selected with the advice of the Head Tutor or a committee member in that field.
    5. Two courses outside the special field, to be selected from among such courses as the committee may designate.
2. *Tutorials*:
    1. *Sophomore year*: Folklore and Mythology 97 required. Letter-graded.
    2. *Junior year*: Folklore and Mythology 98a and b required. Letter-graded.
    3. *Senior year*: Folklore and Mythology 99 (two terms), graded SAT/UNSAT.
3. *Senior Honors Thesis (analytic or creative)*: Required of all concentrators in the senior year.
4. *General Examination*: Required of all concentrators in the final term of the senior year; includes both a written and an oral component.
5. *Other information:*
    1. *Pass/Fail*: Courses counting for concentration credit may not be taken Pass/Fail, except that one Freshman Seminar may be counted for concentration credit if the student received a positive evaluation and if permission to do so is obtained from the Head Tutor.
    2. *Special Fields*: Before or during fall term of the junior year each concentrator must choose a special field in consultation with the Head Tutor and an appointed adviser.
    3. *Language Study*: Proficiency in a language other than English, equivalent to that acquired by two years of college study, is highly recommended. Up to three courses of language study may, in individual cases and with the approval of the Head Tutor in consultation with an adviser in the relevant special field, be counted toward concentration. The specifics of language study within the concentration should be discussed at an early stage with the Head Tutor and the adviser in the concentrator's special field.

**ADVISING**
Students planning to concentrate in Folklore and Mythology should consult with the Head Tutor and a faculty member in the student's prospective special field, normally a member or affiliated member, of the committee. Concentrators are required to see the Head Tutor at the beginning of each term about selection of courses and tutorials, preparation for the senior thesis or senior project, and general examination, and for his signature on study cards.
For up-to-date information on advising in Folklore and Mythology, please see the Advising Programs Office website.

**RESOURCES**
The Milman Parry Collection of Oral Literature is one of the largest and best of its kind in the world. It

contains unpublished epics, ballads, songs, tales, and other kinds of lore from Europe, Africa, Asia, and North America in the original languages. Students interested in folk life or ethnography will find the superb collections in the Peabody Museum of value. The Archives of World Music in the Loeb Music Library constitute a rich source, not only for ethnomusicologists but for folklorists in general.

**HOW TO FIND OUT MORE**
Students are invited to consult the Head Tutor, Dr. Lowell Brower (labrower@fas.harvard.edu or 608-774-2128); the Chair, Professor Stephen Mitchell (samitch@fas.harvard.edu); or the Department Administrator Holly Hutchison (hhutchis@fas.harvard.edu or 617-495-4788).
Please see our website: https://folkmyth.fas.harvard.edu

**ENROLLMENT STATISTICS**
**Number of Concentrators as of December**

| Concentrators | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Folklore and Mythology | 13 | 18 | 10 | 14 | 12 | 14 | 9 | 11 | 10 | 18 | 17 | 3 |
| Folklore and Mythology + Another field | | | | | | | 1 | 0 | 5 | 5 | 6 | 5 |
| *Another field + Folklore and Mythology | 3 | 1 | 2 | 0 | 0 | 1 | 1 | 2 | 3 | 2 | 6 | 4 |

*Folkore and Mythology participates in joint concentrations as either the primary or the allied concentration.

# Germanic Languages and Literatures

**Dr. Lisa Parkes, Director of Undergraduate Studies, German**
**Dr. Agnes Broomé, Director of Undergraduate Studies, Scandinavian**

The Department of Germanic Languages and Literatures offers a rich and diverse program of literary and cultural studies, including film and music. We offer students the option to pursue a concentration in German Studies, Scandinavian Studies, or a joint concentration in German and another field. Our goal is to provide students with the enriching experience of studying languages, literatures, and cultures different from their own so they can gain new perspectives on their languages and countries of origin. At the same time, students will learn how the German-speaking and Nordic countries have influenced the development of Western culture and society. Our graduates are well positioned to understand the central role played by modern Germany in international politics and economics. They can explain why Germany takes the positions it does, the role of the European Union, and why international organizations call on distinguished members of the Scandinavian countries to represent them on taskforces involving matters of conscience. We aim above all to equip students with proficient language, analytical and critical skills for academic, professional, or personal use, as well as an understanding of the politics, culture, history, and ideas through literature, film, music, and other media. Thus, the program is designed not only for students who wish to pursue graduate study in Germanic studies, but also for students who choose careers in education, medicine, law, government, the social sciences, scientific research, business, the arts, design, and other fields.

Our department has a highly favorable ratio of full-time faculty to concentrators, which enables the faculty to provide students with individual guidance and support. Much of the tutorial work is done by full-time faculty, and all seniors writing a thesis have the opportunity to work individually with a professor. The department actively supports both work and study abroad, and all concentration options are designed to accommodate them.

There are no prerequisites for the concentration; however, students should first develop their language skills to meet the required level of proficiency. German language is offered from beginning to advanced levels; students with prior knowledge of German should take a placement test. Students may begin to

study the German language with German 10 (elementary German) or with German 10ab (intensive elementary). Most concentrators in German take the sequence of German 20 (second year) and at least one 60-level course (third year) in order to prepare them for the 100-level courses. The introductory survey courses, German 101 and 102, count as the sophomore tutorial in German, though students are permitted to postpone this sequence until their junior year. Students interested in the Scandinavian concentration (or a Scandinavian language citation) are likewise urged to begin their language study as soon as possible. Students with prior knowledge of a Scandinavian language should contact Dr. Broomé for placement. Our program offers Swedish courses through the second-year level, from Swedish 10 (Beginning Swedish Language and Literature) to Swedish 20 (Special Topics in Swedish Literature and Culture), as well as Old Norse (Scandinavian 160a and 160br). Scandinavian 91r (Independent Study) is available for advanced language students. Danish, Finnish, modern Icelandic, and Norwegian are available as language tutorial courses (Scandinavian 90r.a-c). Students interested in these languages should contact Dr. Broomé at their earliest opportunity, preferably prior to the start of the academic term when they wish to begin their language study.
Concentrators desiring to be considered for honors write a senior thesis of 40 to 50 pages. The thesis is designed to demonstrate that a candidate can read and interpret a literary text or a complex cultural or social phenomenon with authority, insight, and originality, and that s/he is familiar with the major critical writings on the subject. All seniors are required to pass a three-hour written examination. The questions for this examination, designed to give students the opportunity to synthesize the knowledge they have gained from their studies, are based on individual reading lists submitted by each senior to a faculty committee.
**OPTIONS**:

- German Studies
- Scandinavian Studies

**REQUIREMENTS**
**Basic Requirements for All Options**

1. *Required courses*: See **Specific Requirements** for each option.
2. *Tutorials*:
    1. *Sophomore year*: Optional, see **Specific Requirements**.
    2. *Junior year*: Optional, see **Specific Requirements**.
    3. *Senior year*: German 99a & b (two terms) or Scandinavian 99a & b (two terms) required of honors candidates. Graded SAT/UNS. Non-honors candidates: 99c (one term).
3. *Senior Thesis*: Required of honors candidates only.
4. *Senior Capstone*: Required of non-honors candidates only (spring semester).
5. *General Examination*: Required of honors and joint concentrators in the senior year.
6. *Other information*:
    1. *Pass/Fail*: None of the courses counted for concentration may be taken Pass/Fail except for 200-level courses.
    2. Courses counted for concentration credit must be passed with a grade of B- or above.
    3. The degree of honors recommended is based on the results of the general examination, the grade average, and the thesis evaluation.
    4. One of the Frameworks courses in the Humanities (Hum 11a–c) may count toward concentration credit.

**German Studies**
**Specific Requirements**

1. *Basic required courses*: Eleven courses (44 credits).
    1. German 20a, 20b, or 20ab (or may be waived on basis of equivalent preparation)
    2. Up to two courses in German on the 60 level
    3. German 101 and 102.
    4. Three additional courses in German on the 100 level or above.
    5. An additional three courses either in German or in related fields with sufficient focus on the German aspect of the field. In consultation with the Director of Undergraduate Studies, students coordinate these courses into a coherent but flexible program of study. Courses may be selected from such fields as English; folklore and mythology; government; history; history of art and architecture; history of science; linguistics; literature; music; philosophy; psychology; religion; visual and environmental studies; women, gender, and sexuality; and

others, including German itself.
    1. Up to three courses (combined from d and e) may be courses in which the instruction and readings are entirely in English. Together, these courses should address a wide spectrum of German culture from the medieval period to the present, and at least one should address a literary genre.
2. *Senior Capstone*: all non-honors seniors (spring semester)
3. *Courses required for honors eligibility*: Same as Item 1, plus two terms of German 99 (Thesis Tutorial) and the General Examination.
4. *Other information*:
    1. The concentration is designed to make it possible to begin with Elementary German (German 10 or 10ab) in the freshman year and to complete the concentration without difficulty.
    2. Students who place out of German 20 have completed two courses towards the concentration and need not substitute with additional coursework.
    3. One of the Frameworks courses in the Humanities (Hum 11a-c) may count toward concentration credit.

**Joint Concentration Requirements**
This option is intended for students who wish to combine the study of German culture and literature with the study of one other field significantly related to some aspect of the larger field of Germanic languages and literatures. Programs in German and history of art and architecture, German and music, and German and philosophy have been approved by the departments concerned. Programs in German and another literature, or German and another field may be submitted for approval of the departments concerned. For information about other possible combinations, consult the Director of Undergraduate Studies.
*Required courses*: Seven courses (28 credits).

1. German 20a and 20b (or may be waived on basis of equivalent preparation).
2. Five numbered courses in German, which should include German 101 or 102.
3. For German primary: German 99 (two terms). Thesis.

**Scandinavian Studies**
**Specific Requirements**
This option is intended for students who wish to combine the study of Scandinavian literature and culture with the study of some aspect of Western civilization closely related to a special area of the larger field of Scandinavian Languages and Literatures. Programs in Scandinavian and other literatures (including German), drama, folklore, history, linguistics, or an aspect of the social sciences may be submitted for approval by the Director of Undergraduate Studies. Note that this is not considered a joint concentration and that the level of honors will be determined solely by the Department of Germanic Languages and Literatures.

1. *Basic required courses*: Ten courses (40 credits).
    1. Six courses in Scandinavian (may include Scandinavian 91r and Scandinavian 97 and 98).
    2. Four courses in related subjects.
2. *Courses required for honors eligibility*: Twelve courses. Same as Item 1, plus two terms of Scandinavian 99 (Thesis Tutorial).
3. *Other information*: For a list of approved related courses, see the Director of Undergraduate Studies, who must also approve each concentrator's courses. One of the Frameworks courses in the Humanities (Hum 11a-c) may count toward concentration credit.

**ADVISING**
Departmental advising of concentrators in all three years is carried out by the Directors of Undergraduate Studies. Students meet with the Director of Undergraduate Studies in their field regularly at the beginning of each term and thereafter as desired (contact information can be found below).
For up-to-date information on advising in Germanic Languages and Literatures, please see the Advising Programs Office website.

**RESOURCES**
Widener Library offers the most complete research collection in German and Scandinavian literatures, history, and civilization available in the United States. Valuable manuscripts and papers from the estates of such distinguished German poets as Hofmannsthal, Rilke, and Brecht and of such distinguished Scandinavian playwrights as Henrik Ibsen and August Strindberg, can be found in Houghton Library

together with manuscripts from medieval Germany and Iceland. A unique and important resource is the Busch-Reisinger Museum, the only museum on this continent dedicated to Germanic art. The museum, located within the Fogg Museum, was established at the beginning of this century by Kuno Francke, a distinguished professor in the German Department, with the intention of acquainting language and literature students with the artistic heritage of the German-speaking peoples. The Goethe-Institut Boston (170 Beacon Street) offers a wide variety of lectures, exhibitions, films, and concerts on all aspects of Germany and its present and past culture, and the Scandinavian Library (206 Waltham Street, West Newton) likewise hosts lectures, a Nordic film series, and a weekly coffee hour. Students can gain additional practice in conversation by attending the German and Scandinavian tables held in the various Houses, a weekly Stammtisch at The Queen's Head, or a monthly Kaffeestunde in the Barker Center. Harvard is also home to the German Club, the Harvard College Scandinavian Society, and the Harvard Club of Sweden.

**HOW TO FIND OUT MORE**
More detailed information on all concentration programs can be obtained by contacting the Director of Undergraduate Studies for German, Dr. Lisa Parkes (lparkes@fas.harvard.edu, 617-495-3548); or the Director of Undergraduate Studies for Scandinavian, Dr.
Agnes Broomé (agnesbroome@fas.harvard.edu, 617-496-4158). They are available to answer all questions regarding the department's concentrations, and can provide students with reading guides, lists of courses approved each year, copies of past general examinations, etc. All potential concentrators are encouraged to contact them. The department's offices are located in the Barker Center. Additional information is available on our department website.

**ENROLLMENT STATISTICS**
**Number of Concentrators as of December**

| Concentrators | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Germanic Languages and Literatures | 3 | 6 | 4 | 4 | 4 | 5 | 5 | 7 | 4 | 3 | 0 | 2 |
| Germanic Languages and Literatures + another field | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 3 | 1 |
| Another field + Germanic Languages and Literatures | 0 | 1 | 0 | 0 | 2 | 1 | 1 | 1 | 3 | 3 | 4 | 5 |

# Government

**Dr. Nara Dillon, Director of Undergraduate Studies**

The concentration in Government introduces students to the discipline of political science: the study of power in all of its many forms and consequences. Aiming both to prepare students to lead engaged civic lives and to introduce them to the ways in which political scientists explain and analyze the social and political world around us, the concentration has four curricular goals:

Our first goal is to **make all students aware and critical of their unexamined assumptions about politics**. Learning to think independently and with some critical distance, to analyze arguments —theoretical, empirical and rhetorical—to weigh alternatives, to write cogently, and to speak persuasively are essential skills for responsible global citizenship as well as professional careers. Government 97 (the sophomore tutorial) begins the process by asking students to write a research paper on real-world issues important to them. This training in research and analysis is provided in the context of small seminars on a variety of topics, giving students an opportunity to read cutting- edge research and to debate these issues with students who share the same interests.

To **achieve breadth in the discipline of political science** is our second aim. Political science covers many different subjects, including the philosophy and ethics of exercising power and the history of

political ideas (political theory); the operation of politics in the United States (American politics); the diversity of political regimes, institutions, and behaviors in the contemporary world and the significance of these divergences (comparative politics); and, finally, the interaction among international actors, the causes of war and peace, and the roots of global poverty and prosperity (international relations). Political scientists work in and across these disciplinary subfields using a large and varied tool kit: qualitative methods such as historical and archival research, fieldwork, interviews, and textual analysis; and various quantitative approaches including statistical analysis, formal modeling and experiments. Our goal is to assure that concentrators grasp the main approaches and topics in the discipline by requiring concentrators to take at least one course in each of the traditional subfields, and by requiring Government 50: Data, or a higher-level methods course.

Third, we encourage students to **chart a distinctive path through political science**. We offer each student the possibility of satisfying his or her particular intellectual bent and curiosity through a cluster of electives and at least one required seminar. Each student has the freedom to choose his or her particular path through the diverse Government curriculum, but we want to assure that choices are thoughtful and informed. Therefore, students begin to work on a particular plan to navigate the rich resources in the department in sophomore spring in consultation with their sophomore tutor and concentration adviser. During the next four semesters students refine this plan with the help of advisers and faculty. Often students cluster electives either in a subfield, a geographical area, or a particular methodological approach, and enroll in a seminar that allows them to think about framing a research question using their chosen focus.

Finally, we encourage students to **produce as well as consume political science research**. All concentrators are required to take at least one seminar, in which they produce a research paper or other project under the guidance of teaching faculty. They are also welcomed to fulfill one elective requirement through Government 51: Data Analysis and Politics or Gov 92r: Faculty Research Assistantship for Credit. Those who choose the honors track (which requires a thesis) are normally expected to take one of the research practice courses: Government 52 (Models), Government 62 (Research Practice in Qualitative Methods), or Government 63 (Topics and Resources in Political Theory). Honors concentrators often use multiple seminars to explore possible research directions for the senior thesis, a substantial work of independent scholarship that serves as the capstone of their experience in Government.

**Government as a Secondary Field**
Many students pursue a secondary field in Government, which requires five courses, with no more than two at the foundational level (e.g., Gov 10, 20, 30 or 40). For examples of how students have used secondary fields in government, please consult the Secondary Field page on our website.

**Government as Part of a Joint Concentration**
Government offers a few students the possibility of a joint concentration, with Government as either the primary or allied concentration. Petitions for joint concentrations are entertained twice a year: once in September and once in February. For more about this option, see the Joint Concentration page on our website, and note the special requirements for joint concentrators listed below.

**REQUIREMENTS**
**Basic Requirements: 10 courses (40 credits)**

1. *Required courses:*
    1. *Field Requirements*: One course in each of the four subfields. These need not be foundational courses (i.e. Gov 10, 20, 30, and 40). The four subfields are:
        1. Political Thought and Its History.
        2. Comparative Government.
        3. American Government.
        4. International Relations.
        5. *Note*: The courses that count for each subfield in any given academic year may be found by searching my.harvard as follows:
            1. Political Thought and Its History: keyword search “theory_subfield”
            2. Comparative Government: keyword search “comparative_subfield”
            3. American Government: keyword search “american_subfield”
            4. International Relations: keyword search “ir_subfield”
    2. *Research Methods Requirement*: Government 50: Data or a higher-level course such as

Government 51: Data Analysis and Politics, or Government 52: Models. A Statistics course, such as Statistics 104, may be substituted for Government 50. If a Statistics course is substituted, one more Government elective is required.
3. *Government Electives*: Three additional courses in government, four if substituting Statistics 100 or 104 for Government 50. Up to two may be from a list of pre-approved Harvard Kennedy School courses.
4. *Tutorial*: Government 97: Sophomore Tutorial. Letter-graded.
5. *Seminar*: One Undergraduate Seminar (Government 94).

2. *Thesis*: Not required.
3. *General Examination*: Not required.
4. *Other information:*
    1. *Pass/Fail and SAT/UNSAT*: Only one Government elective may be taken Pass/Fail or SAT/UNSAT. All other courses counted for concentration requirements must be letter-graded. Courses to fulfill subfield, seminar, or methods requirements must be taken for a letter grade. [The emergency SEM/USEM grades for Spring 2020 courses are exempt from this rule.]
    2. *Government 50 and Statistics*: Students should take either Government 50, 51, or 52, or a Statistics course to fulfill the Research Methods requirement. If a student takes both courses, both courses will count into the student's concentration GPA, and the Statistics course cannot count as one of the three required Government electives.
    3. Gov 91r, Supervised Reading and Research, cannot count towards the Government concentration requirements.

**Requirements for Honors Eligibility: 13 courses (52 credits)**

1. *Required courses:*
    1. *Field Requirements*: One course in each of the four subfields (same as **Basic Requirements**).
    2. *Research Methods Requirement*: Government 50: Data or an alternative (same as **Basic Requirements**) Government 51 is also strongly encouraged for thesis writers.
    3. *Electives*: Three additional courses in government, four if substituting a Statistics course for Government 50. Up to two may be from a list of pre-approved Harvard Kennedy School courses.
    4. *Tutorials*:
        1. *Sophomore year*: Government 97. Letter-graded.
        2. *Senior year*: Government 99r (two terms), devoted to the writing of a thesis. Graded SAT/UNS. Students should consult the Assistant Director of Undergraduate Studies for more information.
    5. *Two Seminars*: Ordinarily, a research practice course (Government 52, 62, or 63) and at least one Government 94 Undergraduate Seminar. Students may substitute a second Government 94 seminar for a research practice course.
2. *Thesis*: Required of all candidates for honors. A student may not earn credit for the second semester of Government 99r without submitting a completed thesis. To earn credit for the first semester of Government 99r, a student must submit at least thirty pages of written work that is acceptable to the thesis adviser and must be enrolled and actively participate in the senior thesis workshop.
3. *General Examination*: An oral examination is required under certain circumstances.
4. *Other information:*
    1. *Pass/Fail and SAT/UNSAT*: Only one Government elective may be taken Pass/Fail or SAT/UNSAT. All other courses counted for concentration requirements must be letter-graded. Courses to fulfill subfield, seminar, or methods requirements must be taken for a letter grade. [The emergency SEM/USEM grades for Spring 2020 courses are exempt from this rule.]
    2. *Government 50 and Statistics*: Students should take either Government 50 or a Statistics course to fulfill the Research Methods requirement. If a student takes both courses, both courses will count into the student's concentration GPA, and the Statistics course cannot count as one of the three required Government electives.
    3. *Advanced Standing*: Same as **Basic Requirements**.
    4. Gov 91r, Supervised Reading and Research, cannot count towards the Government concentration requirements.

**Joint Concentration**
**Government as the Primary Field: 17 courses (68 credits) total**
**(11 courses in Government—44 credits)**

1. *Required courses:*
    1. Government Field Requirements: one course in each of the four subfields (same as **Basic Requirements**).
    2. *Tutorials*:
        1. *Sophomore year*: Government 97. Letter-graded.
        2. *Senior year*: Government 99r (two terms), devoted to the writing of a thesis. Graded SAT/UNS. Students should consult the Director of Undergraduate Studies for more information.
    3. *Research Methods Requirement*: Government 50: Data, Government 51: Data Analysis and Politics, or Government 52: Models. A Statistics course, such as Statistics 104, may be substituted for Government 50.
    4. *Electives*: one additional course in Government.
    5. *Seminars*: Two Undergraduate Seminars (Government 94). Students may substitute one Research Practice course (Government 52, 62, or 63) for one of the required seminars. On petition to the Director of Undergraduate Studies, one seminar may be from the allied field.
2. *Thesis*: Required.
3. *General Examination*: An oral examination is required under certain circumstances.
4. *Other information:*
    1. *Petitions*: Properly qualified candidates for honors interested in pursuing a joint concentration must petition the Director of Undergraduate Studies for approval. Further details are available at the Government Undergraduate Program Office and on the department's website.

**Government as the Allied Field: 6 courses (24 credits) in Government**

1. *Required courses:*
    1. *Government Field Requirements:* two courses in each of two of the four subfields listed under **Basic Requirements**.
    2. *Research Methods Requirement*: Government 50: Data, or a higher-level course: Government 51: Data Analysis and Politics, or Government 52: Models. A Statistics course, such as Statistics 104, may be substituted for Government.
    3. *Tutorial*: Government 97: Sophomore Tutorial. Letter-graded.
2. *Thesis*: Required.
3. *General Examination*: A written general examination is not required. An oral examination is required under certain circumstances.
4. *Other information:*
    1. *Petitions*: Properly qualified candidates for honors interested in pursuing a joint concentration must petition the Director of Undergraduate Studies for approval, even if they do not intend Government to be their primary field. Further details are available at the Government Undergraduate Program Office and on the department's website.

**STUDY ABROAD**
The Government department encourages study abroad for a term, and it is also possible to study abroad for an entire academic year. The Government department is very flexible in granting credit towards the concentration requirements for political science courses taken elsewhere although all such courses must be discussed with, and approved by, the DUS. Ordinarily, a student can count two courses taken abroad in any one semester towards Gov concentration requirements. Students must receive a grade of B– (or equivalent) or higher in order to receive final approval for courses taken abroad.

**SUMMER SCHOOL**
Generally, students can count only one Harvard Summer School Government course, taught either on campus or abroad, towards their Government concentration requirements. If that course is not taught by a Harvard Government Department faculty member, the student must petition the Government DUS before the course is taken.

**ADVISING**
For information and advice about the Government concentration, students are encouraged to meet with the Director of Undergraduate Studies and with the concentration advisers in the Houses. Please consult

the department's website for a listing of advisers and office hours.

**HOW TO FIND OUT MORE**
For further information concerning concentration in Government, students should visit the Government Undergraduate Program Office (617-495-3249). The office, located at CGIS Knafel Building, room K151, 1737 Cambridge Street, is open Monday through Friday, 9:30–5:30. Additional information is also available on the department's website.

**ENROLLMENT STATISTICS**
**Number of Concentrators as of December**

| Concentrators | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Government | 477 | 467 | 475 | 473 | 438 | 468 | 378 | 347 | 333 | 324 | 305 | 313 |
| Government + another field | 8 | 1 | 3 | 8 | 8 | 7 | 2 | 3 | 12 | 16 | 19 | 15 |
| Another field + Government | 3 | 0 | 3 | 5 | 2 | 9 | 2 | 4 | 16 | 2 | 19 | 15 |

# History

**Professor Lisa McGirr, Director of Undergraduate Studies**

***What is History, and how do we view the world?***
History is a broad discipline encompassing every dimension of human interaction in the past, including social life, the economy, culture, thought, and politics. Students of history study individuals, groups, communities, and nations from every imaginable perspective—employing all the techniques of the humanities and social sciences to raise questions and probe for answers. Students explore the origins and developments that have shaped our contemporary world; and take courses that span the globe and range in chronological scope from antiquity to today.

***What is it like to study History at Harvard?***
The History concentration combines rigorous training with flexibility, facilitates close student engagement with our diverse faculty, and solicits regular student input. The History Department faculty teach courses that seek to unsettle students - encouraging them to confront unfamiliar ideas, cultures, and eras - and to question their own assumptions about the world and their place in it. Interdisciplinarity is essential to historical practice. Our students familiarize themselves with the methods and theoretical assumptions of other disciplines, even while learning how these methods and theories are just as much products of history as the questions they were developed to address.

***What is the value of studying History?***
History students examine issues critically and creatively, grasp details while seeing the big picture, and think boldly but flexibly enough to change their opinions when change is warranted. These are the skills of a sophisticated thinker and a responsible citizen. They are also valued in countless fields. Our graduates move on to careers in consulting, business, law, journalism, government, and non-profit work. Only a small percentage of our concentrators pursue post-graduate work in history. Students wind up in exciting places during college as well, through summer jobs, internships, academic programs, service initiatives, and terms or school years abroad.

***What are the goals of the History concentration?***
History students study how societies and people functioned in various contexts in the past and how the past continues to shape the present. Our faculty help students learn how to analyze complex events and craft original arguments from large amounts of disparate evidence. This capacity for research is one of the central goals of the concentration and provides skills fundamental to a wide array of career opportunities, especially those that value the ability to process complicated sets of information, to take multiple perspectives on that information, and to communicate effectively and concisely about it. Students are encouraged to follow their own interests while the department provides structured guidance and rigorous training in research skills, critical reading, oral communication, effective writing, and

problem solving. The discipline enables students to engage with the unfamiliar with confidence and creativity.

***How can I decide if History is the right concentration for me?***
The best way to explore the History concentration is to take a course with one of our faculty members. All of our courses are open to non-concentrators and none have prerequisites.
The department also has a series of foundations courses ( History "101s") that are especially welcoming to freshmen and to pre-concentrators, (You do not need prior knowledge of the time or place studied to take one of these courses nor are you expected to have done any prior college level history.) Our "101s" are wonderful gateways into the department.

The department has also developed a series of thematic and career course clusters to provide students additional pathways into the concentration. These clusters can help guide your course selections depending on your intellectual interests or the future career you might be considering. Explore our foundations courses and our thematic and career course clusters on our undergraduate webpage.

***Do I have to write a thesis?***
History has two tracks. They differ only in that the honors track requires a thesis as well as enrollment in History 99, our year-long Thesis Seminar. Our advising programs support students who begin preliminary thesis work as early as junior year, and numerous college fellowships provide funding for summertime research. The thesis program itself is flexible enough that students can decide as late as shopping week senior fall whether to write a thesis. Meanwhile, the requirement to produce a substantial research paper in one of your History seminars ensures that either way, you will produce an original work of historical scholarship that can be the capstone to your undergraduate academic career.

***Are there other options instead of a full concentration?***
Our robust secondary field requires five courses, including one seminar. See also below for information on joint concentrations with History. Our faculty are well represented in the Gen Ed course offerings and in interdisciplinary courses with a variety of disciplines. Hundreds of non-concentrators every semester take classes from History faculty, gaining an introduction to the critical and creative skills historians emphasize. No matter what interests you, History has something to offer—everything has a history, and our Department teaches you how to recover, recreate, and interpret it.

**REQUIREMENTS**
**Basic Program: 10 courses (40 credits)**
**Thesis Program: 12 courses (48 credits)**

1. *Required courses:*
    1. One course that focuses significantly on U.S. or European history.
    2. One course that focuses significantly on history beyond the U.S. and Europe.
    3. One course that focuses significantly on historical societies before 1750.
    4. Four additional courses in history, to be chosen in consultation with the student's House adviser, who signs the Crimson Cart. Each concentrator may petition the DUS to receive History credit for one non-departmental course. This "related field" might be a course of an historical nature taught by other faculty in the College, or a course providing auxiliary knowledge or skills related to the concentrator's historical interests.
2. *Tutorials*:
    1. History 97 (offered in spring): taken during the first term in the concentration (required and letter-graded).
    2. *Two Seminars*: Ordinarily taken by the end of the second term of the junior year (required and letter-graded). In at least one of these students must write a substantial research paper. For students wishing to write a senior thesis, that research paper must be at least 20 pages long and involve primary source research.
    3. *Basic Program*: No thesis.
    4. *Thesis Program*: History 99 (year-long 8-credit course, required, and graded SAT/UNS).
3. *General Examination*: Oral Examination for highest (departmental) honors candidates.
4. *Other information:*
    1. *History courses*: The courses listed under "History" in my.harvard.edu (including cross-listed courses) as well as other courses taught outside the Department by members of the Department of History are available for History credit without petition. Courses of an historical nature taught by other faculty in the College in related fields may be taken for History credit

by petition to the DUS.
2. *SAT/UNS*: Courses, aside from History 99, taken on a SAT/UNS (Pass/Fail) basis may not be counted for concentration credit.
3. *Advanced Placement*: The History Concentration does not grant credit for AP scores.
4. *Study Abroad*: The History Department encourages study out of residence and urges interested students to consult the DUS about their programs at their earliest convenience. Additional information is available at our website.
5. *Freshman Seminars*: Freshman Seminars taught by members of the History Department count toward concentration credit; as a general rule other Freshman Seminars do not. In case of uncertainty please contact the Undergraduate Office.

**Joint Concentrations**
History offers pre-approved Joint Concentrations in **African and African American Studies, Anthropology, East Asian, Near Eastern, and Ancient (Greek and Roman) History. Joint concentrations with other fields are also possible and are designed in consultation with both departments on a case by case basis. Concentrators are currently pursuing joints with Romance Languages and Literature, History of Art and Architecture, Folklore and Mythology, and Math (as the allied field). If you wish to discuss an individualized joint, please consult Lisa McGirr, DUS or Carla Heelan, ADUS.**

Students whose interest in African and African American Studies, Anthropology, East Asian, Near Eastern, or Ancient (Greek and Roman) civilizations is primarily historical in character should consider the relevant joint concentration which has been pre-approved in each of these areas. The goal of each program is to introduce students to the craft of historical study - the ways historians make sense of the past, and the skills of historical analysis, writing, and research - as well as to promote a critical understanding of the historical experience of African/African American/East Asian/Near Eastern/Greek and Roman societies, or to join together the fields of historical and anthropological study (archeological or social).

Students pursuing one of the pre-approved joint concentrations will complete one-half of their tutorial work in the History Department (History 97) and the other half in African and African American Studies, Anthropology, East Asian Studies, Near Eastern Languages and Civilizations, or Classics. Students take a History seminar, typically in junior year, in which they write a 20-page research paper based on primary sources; in addition, they take a seminar or junior tutorial in the joint field as specified in each case. In the senior year, joint concentrators write an honors thesis, an original work of research which is advised and evaluated in both concentrations and which typically focuses on some aspect of African, African American, East Asian, Near Eastern, or Ancient Greek and Roman history, or is located at the intersection of history and anthropology (archaeological or social).

*All joint concentrators are required to take 14 courses, including the senior thesis tutorial in History or the joint field if History is the allied field. For further information on our joint requirements, please see our website.*

**ADVISING**
Students are encouraged to come to the History Undergraduate Office in Robinson 101 for information and advice about the History concentration. It is particularly important for anyone considering a concentration in History to make an appointment with the Director of Undergraduate Studies or the Assistant Director of Undergraduate Studies - the sooner the better and in any case in advance of the concentration deadline (mid-November of sophomore year). The Director of Undergraduate Studies is Professor Lisa McGirr. She and the Assistant Director of Undergraduate Studies both hold weekly office hours and see students throughout the year. Each House has a History Adviser on staff (resident or non-resident), and each History concentrator who requests one will be assigned a Faculty Adviser.

First-years interested in exploring History as a concentration are encouraged to take two or more of the following in the pre-concentration period: a History “101,” (these include General Education courses taught by history faculty), a freshman seminar led by a member of the department, any lecture course designated as a broad survey in the department, and/or a seminar in the fall of the sophomore year.

For lists of History Department Student Advisory Board Members and House Advisers in History and other useful links, please see the History Department's website for undergraduates.

**RESOURCES**
In addition to the advising resources listed above, the History Dept.'s Widener Library liaisons Fred Burchsted (burchst@fas.harvard.edu) and Anna Assogba (assogba@fas.harvard.edu), have been working with the History Department for several years. They welcome and invite you to email them whenever you have questions about any library matter. They are happy to answer questions via email, help you with finding sources for your papers, and are happy to meet with you in person to talk about your work.

**HOW TO FIND OUT MORE**
Please visit the department's website for more information about the History concentration. The office is open Monday–Friday 9:00am–5:00pm and may be reached by telephone at 617-495-2157. Students may sign up for an appointment with the Director of Undergraduate Studies or Assistant Director of Undergraduate Studies at the History Department's website for undergraduates.

**ENROLLMENT STATISTICS**
**Number of Concentrators as of December**

| Concentrators | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| History | 231 | 216 | 184 | 170 | 156 | 174 | 156 | 150 | 146 | 136 | 128 | 118 |
| *History + another field | 10 | 1 | 6 | 9 | 8 | 5 | 11 | 6 | 7 | 9 | 10 | 10 |
| *Another field + History | 1 | 0 | 2 | 1 | 2 | 5 | 9 | 10 | 10 | 5 | 9 | 6 |

*Ordinarily, History does not participate in joint concentrations other than East Asian History, a joint concentration with East Asian Studies; Near Eastern History, a joint concentration with Near Eastern Languages and Civilizations; and Ancient History (Greek and Roman), a joint concentration with the Classics.

# History and Literature

**Dr. Lauren Kaminsky, Director of Studies**

History and Literature is the oldest concentration at Harvard. At the heart of History and Literature are individual and small group tutorials which provide individual instruction, opportunities to pursue specific topics in depth, and dedicated mentoring. Along with the core History and Literature tutorials, concentrators take concentration courses across a variety of departments and programs: Romance Languages and Literatures; African and African American Studies; Art, Film, and Visual Studies; History of Art and Architecture; Theater, Dance and Media; Music; Women, Gender, and Sexuality; as well as History, English, and many more.

Students take a History and Literature tutorial each semester. Sophomore tutorial—taught in the sophomore spring by two instructors, one a historian, the other a literary scholar—introduces students to interdisciplinary methods and explores topics in depth. In the fall semester of junior tutorial, small groups of students collaboratively design a syllabus with the guidance of an instructor. In the junior spring, students focus on researching and writing the junior essay. The senior tutorial is one-on-one instruction, both in fall and spring, primarily devoted to researching and writing the thesis.

Students work closely with concentration advisers to select a field of study at the end of the sophomore year. These fields are American Studies, Ethnic Studies, European Studies, Latin American Studies, Modern World, World Before 1800, and Medieval Studies. In the junior and senior years, the fields of study provide a structure to ensure that concentrators gain knowledge that is broad as well as deep. History and Literature aspires to promote the integration of disciplines and a balance between general knowledge and specific expertise. It is a demanding and immensely rewarding enterprise.

History and Literature encourages concentrators to grow as writers and researchers, and the concentration is designed to teach students to think in interdisciplinary ways. Students develop skills in close reading, identifying and analyzing primary and secondary sources, posing research questions,

conducting original research, making arguments, and communicating clearly and persuasively.

Many concentrators choose to study abroad as a means for augmenting their work in the concentration. Advisers in the concentration work closely with students who elect to study abroad to help craft plans of study that integrate courses taken out-of-residence.

Students interested in History and Literature are encouraged to reach out to our administrative team over email with any questions. One of the best ways to learn about what History and Literature has to offer is to enroll in one of our HL90 seminars, which are open to non-concentrators.

History and Literature welcomes joint concentrations and secondary fields, and it aspires to make the integration of two concentrations as seamless as possible. History and Literature must be the primary concentration in any joint plan of study, except when the student plans to pursue a creative senior project. In that case, the department providing artistic training may be the primary concentration. Please see the Director of Studies with any questions about joint concentrations.

**REQUIREMENTS**
**14 courses (56 credits)**

At the end of sophomore year, each History and Literature concentrator selects a field of study and submits a Field Worksheet. Revised worksheets are submitted in the junior and senior years. A regularly-updated list of the courses that count in the various fields is available on the History and Literature website. Courses in the social sciences on subjects related to the student's field may be accepted for concentration credit by the Committee on Instruction on an individual basis.

1. *Required courses:*
    1. At least eight courses in the field of study, balanced between history and literature. Specific period requirements exist in several of the fields of study. Details on fields of study and their requirements are available on the History and Literature website. Generally, courses must be letter-graded to count for concentration credit.
    2. *Language requirement*: Students must take at least one course in which they read sources in a language other than English. A list of ways to fulfill the language requirement, including by earning a language citation, is available on the History and Literature website.
2. *Tutorials*:
    1. *Sophomore year*: History and Literature 97 (one course) required. Letter-graded.
    2. *Junior year*: History and Literature 98 (two courses) required. Letter-graded.
    3. *Senior year*: History and Literature 99 (two courses) required. Graded SAT/UNS.
3. *Junior Essay*: A required 6,000-word research paper is the focus of the second semester of junior tutorial.
4. *Senior Thesis*: A 10,000-20,000-word thesis is expected of all concentrators and required for concentration honors. A student enrolled in History and Literature 99 who does not complete a thesis can receive credit for this course by completing a paper in the relevant field.
5. *Senior Honors Oral Examination*: A one-hour oral examination is required of all concentrators, except those who do not submit a thesis by the deadline for consideration for honors.
6. *Other information:*
    1. *Fields of Study:*
        1. American Studies
        2. Ethnic Studies
        3. European Studies
        4. Latin American Studies
        5. Modern World
        6. World before 1800
        7. Medieval World
    2. *Subfields*: In the junior year, concentrators may propose subfields, which consist of 2 or 3 courses that would not otherwise count toward the student's field of study. Students will be examined on the subfield during the senior oral exam.
    3. *Study Abroad*: History and Literature encourages study abroad. Generally, students will take an additional course that counts for concentration credit to replace the tutorial they miss while abroad. Students who successfully complete the junior essay process while studying abroad in the junior spring will receive a one-course reduction in the 14 total concentration courses.
    4. *Joint Concentrations*: History and Literature allows joint concentrations, but it must be the

primary concentration in any joint plan of study, except when the student plans to pursue a creative senior project.

5. *Independent Study*: With the permission of the Director of Studies, concentrators may be allowed to take History and Literature 91r for credit.

**ADVISING**

Each student is assigned to a tutor who also functions as that student's academic adviser. The adviser and student work closely together to assemble a Plan of Concentration that fits the student's intellectual interests and fulfills concentration requirements. Each student is also assigned a concentration adviser who will be a resource for the student through every stage of the concentration. History and Literature's personalized academic advising gives students a flexible, individualized educational experience.

**HOW TO FIND OUT MORE**

Students are invited to visit History and Literature in Barker 122 and online. Lauren Kaminsky is the Director of Studies.

**ENROLLMENT STATISTICS**
**Number of Concentrators as of December**

| Concentrators | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| History and Literature | 152 | 151 | 151 | 138 | 140 | 142 | 120 | 128 | 142 | 147 | 144 | 138 |
| History and Literature + another field* | 6 | 4 | 5 | 7 | 11 | 7 | 7 | 7 | 13 | 24 | 36 | 42 |

*History and Literature participates in joint concentrations only as the primary field.

# History and Science

**Professor Anne Harrington, Director of Undergraduate Studies**

The History and Science concentration at Harvard is a flourishing interdisciplinary field of study. We are also a small and friendly concentration, with a real sense of community, and we pride ourselves on finding ways to nurture students' individual interests through a flexible curriculum, and opportunities for one-on-one instruction, internships, behind the scenes museum and exhibition design opportunities, research assistantships with faculty, and special travel programs for concentrators only.

***Why should I consider History and Science?***

History and Science may be a good choice for you if:

(1) You would like to do significant work in some area of science (any field taught in the College) and combine it with historical, ethical and social analysis of how science, medicine, or technology works in the world.

(2) You are interested in the ways in which science, medicine or technology is affected by (and in turn affects) important issues in politics, industry and policy, whether climate change, the teaching of evolution in the public schools, the patenting of genes and new forms of life, and more.

(3) You are interested in big questions -- the existence of God, the nature of free will, the roots of human morality, and more – and would like to understand the ways in which science has shaped or is shaping the ways in which we think about them.

(4) You are considering attending medical school and would like a concentration that allows you to count many of your premed science requirements, even as you take classes and do advanced research in the history of medicine, medical anthropology, and health policy.

(5) You are interested in computer science, or considering a career in engineering or information technology, and would like a concentration that allows you to count many computer science and

engineering classes for concentration credit, even as you to take classes and do advanced research in the history and social analysis of technology, computer science, and the world of big data.
(6) You are interested in health or science policy, including problems of global health and health inequities, and want a concentration that will offer you an interdisciplinary path of study for engaging with the issues.
(7) You are – or aspire to be – a person who is equally literate in the world of the sciences and the world of the humanities and the social sciences.
(8) You would value a concentration that cares deeply about teaching, provides abundant opportunities for interaction with faculty, and will rigorously train you in essential analytic, presentation, and research skills that will be valuable for you, no matter what career you choose to pursue.

***How is the concentration structured?***
The concentration has a two-track structure that provides students with high levels of flexibility. Both of the tracks offer an honors and a non-honors option.

The Science and Society Track is designed for students who have an interest in doing significant course work in an area of science but who also want to study how science develops and affects the world: how it relates to industry, policy, politics and the broader culture. Students can both do science and analyze how science functions in the world of human affairs.

The History of Science Track does not require students to take science courses beyond the level mandated by General Education (though some may choose to do so and receive concentration credit). It offers students the possibility of studying the history and social relations of science more broadly. By taking a combination of courses from our department and also outside of it, students can learn how sciences as diverse as theoretical physics and economics interact with other areas of culture such as literature, film, art, or government.

Concentrators in History and Science generally combine course-work in the history of science, medicine or technology (broadly defined) with course-work focused in any area of science taught in the College. Our students also often take courses for concentration credit in global health, science and religion, medical ethics, sociology of science, philosophy of science, anthropology of medicine, and more. Tutorials are aimed at introducing concentrators to some of the most exciting questions in the field and training them with the reading, research, and writing skills they need to do original research of their own. By the time of graduation, all our concentrators possess advanced social science research skills, and often produce original academic work of very high quality.

The concentration also offers three special foci or paths through the program: (1) Medicine and Society, (2) Mind, Brain, and Behavior, and (3) Technology, Information, and Society.

(1) Medicine and Society offers pre-medical students an opportunity to combine the science work required of them for medical school with disciplined historical and social science analysis of medicine, health care, public health and the allied medical sciences and medical technologies. This is an honors-only plan of study, and all students must write a senior thesis.

(2) Mind, Brain, Behavior offers students with interdisciplinary leanings an opportunity to join a College-wide community of undergraduates from six different departments who have interests in the neurosciences and their allied fields, all while focusing their own studies in a mix of psychology, brain science, and the history of the mind, brain and human sciences. This is an honors-only plan of study, and all students must write a senior thesis.

(3) Technology, Information and Society offers students an opportunity to combine coursework in computer science and its allied fields (including select courses in engineering sciences) with courses in the history and social study of technology, computing, and information science. This is an honors-optional plan of study. Students are encouraged to write a senior thesis, but some may choose instead to take more advanced work in engineering or computer science during the course of their senior year.

***What are the requirements?***
Every concentrator will take History of Science 100, which is offered in the fall semester. In addition,

every concentrator will take one semester of sophomore tutorial and one semester of junior tutorial, taught by faculty members and teaching fellows from the Department of the History of Science.

*History of Science 97*, the sophomore tutorial, is a hands-on course that introduces students to some of the most exciting and productive questions in the history of science, technology, and medicine, while developing critical reading, presentation, and discussion skills. Students work in groups to explore different aspects of a larger theme each week and share discoveries in sessions led by the faculty instructor. The course is further enhanced by a series of supervised individual group projects.

*History of Science 98*, the junior tutorial, is a course designed to train students in historical research, from how to work in archives to how to master relevant theoretical perspectives needed to think well about a research question. All students enrolled in this course are guided through an intense but supportive mentoring process that results in a 25-page independent research paper.

*History of Science 99ab*, the senior thesis tutorial, is an opportunity to spend a sustained period of time working on a research problem. Students choosing to write a senior thesis may be supervised by a faculty member or an advanced graduate student and are free to pursue a diverse range of topics. Many of our theses go on to win College awards, and some have even been published. Students are welcome to look through the collection of past and present senior theses which are located in the Department of the History of Science.

***What can graduates do with a degree in History and Science?***
Our graduates frequently go on to successful careers in many areas, especially in jobs or forms of further professional training that require or value both technical and social scientific understanding of information science, biotechnology, medicine, health and global health, the law, and public policy. Many win prestigious fellowships that allow them to pursue further academic study. Our alumni have had this to say about their experience with us:

> "It was the most flexible, versatile, and practical concentration on campus. It prepared me for both research endeavors within the halls of academia as well as the critical thinking skills needed for graduate degree work."
>
> "History and Science is the best concentration of all time. Period…Liberal arts educations aren't intended to 'qualify' you for any particular job, but History and Science provides you with a truly broad based, well rounded education and teaches you novel ways of looking at the world which have been invaluable to me as a lawyer and as a human being."

Employers are increasingly looking for graduates who are not just literate but also scientifically literate, not just technically skilled in a special subject but able to see the larger cultural, social, and policy implications and impact of scientific and technical developments. If this kind of breadth of vision appeals, our concentration may be right for you.

**REQUIREMENTS**
**History of Science Track**
**Basic Requirements: 11 courses (44 credits)**

1. *Required courses:*
    1. History of Science 100: Knowing the World: Introduction to the History of Science.
    2. Six courses in the history of science, medicine, and technology. These courses should be coherent and be chosen in consultation with a departmental adviser and serve the students' goals. By senior year, some students may opt for a 200-level course, with the approval of the instructor. One course, if desired, may consist of supervised reading and research, beyond that required by tutorial.
    3. Two courses, normally outside the department, designed to allow students to connect special interests in the history of science to relevant course work offered in other departments; examples include certain courses in history, film studies, sociology, religion, medical anthropology, philosophy of science, and literature.
2. *Tutorials*:
    1. *Sophomore year:* History of Science 97 (one course) required, group tutorial. Letter-graded.
    2. *Junior year:* History of Science 98 (one term) required. Letter-graded.
3. *Thesis*: None.

4. *General Examinatio*n: None.
5. *Other information:*
    1. *Pass/Fail:* Two non-letter graded courses, including relevant Freshman Seminars taught by department faculty, may count for concentration credit.
    2. *Study Abroad*: Students may elect to study abroad during their junior year. The department will count up to two approved courses out of residence towards concentration requirements. There is also the possibility of receiving two courses' worth of credit for participation in a summer study abroad program led by a member of the Department. Please consult with the Director of Undergraduate Studies or the Manager of Student Programs for more information.

**History of Science Track**
**Requirements for Honors Eligibility: 13 courses (52 credits)**

1. *Required courses:*
    1. History of Science 100: Knowing the World: Introduction to the History of Science.
    2. Six courses in the history of science, medicine, and technology. These courses should be coherent and be chosen in consultation with a departmental adviser and serve the students' goals. By senior year, some students may opt for a 200-level course, with the approval of the instructor. One course, if desired, may consist of supervised reading and research, beyond that required by tutorial.
    3. Two courses, normally outside the department, designed to allow students to connect special interests in the history of science to relevant course work offered in other departments; examples include certain courses in history, film studies, sociology, religion, medical anthropology, philosophy of science, and literature.
2. *Tutorials*:
    1. *Sophomore year:* History of Science 97 (one term) required, group tutorial. Letter-graded.
    2. *Junior year:* History of Science 98 (one term) required. Letter-graded.
    3. *Senior year*: History of Science 99ab (two terms) required (preparation of senior honors thesis). Graded Sat/Unsat.
3. *Thesis*: Required.
4. *General Examination:* None.
5. *Other information:*
    1. *Pass/Fail:* Two non-letter graded courses, including relevant Freshman Seminars taught by department faculty, may count for concentration credit.
    2. *Study Abroad:* Students may elect to study abroad during their junior year. The department will count up to two approved courses out of residence towards concentration requirements. There is also the possibility of receiving two courses worth of credit for participation in a summer study abroad program led by a member of the Department. Please consult with the Director of Undergraduate Studies or the Manager of Student Programs for more information.

**History of Science Track**
**Non-Thesis Option: 12 courses (48 credits)**

1. *Required courses*: Same as **Basic Requirements**.
2. *Tutorials*: Same as **Basic Requirements**.
3. *Thesis*: None.
4. *General Examination*: None.
5. *Other information:* Same as **Basic Requirements**, plus the following:
    1. *Minimum concentration GPA*: Students must have a concentration GPA equivalent to the College-wide cut-off for degrees magna cum laude in field. Concentration grade-point averages will be calculated from a student's best twelve courses that meet the requirements, including final semester grades.
    2. *One graduate-level course*: Students must successfully complete (with a minimum B+ grade) at least one graduate-level (i.e., 200-level) course taught by a member of the History of Science faculty or in an appropriate other department (e.g., History). This requirement can also be met by completing a graduate-level track of work, as determined by the faculty instructor, offered within a 100-level course. The requirement is normally fulfilled in the senior year.
    3. *Determination of Departmental Honors*: A degree recommendation of Honors (not High or

Highest Honors) will be awarded to students who meet these requirements.

**Science and Society Track**
**Basic Requirements: 11 courses (44 credits)**

1. *Required courses:*
    1. History of Science 100: Knowing the World: Introduction to the History of Science.
    2. Four courses in the history of science, medicine, and technology. If you have chosen one of the special foci, these courses will normally be concentrated in your area of interest. Historically-oriented courses dealing with science, medicine or technology offered in other departments may be counted towards this requirement, with the approval of the Director of Undergraduate Studies. By senior year, some students may opt for a 200-level course, with the approval of the instructor. One course, if desired, may consist of supervised reading and research, beyond that required by tutorial
    3. Four courses in science, all in one coherent field, though not necessarily in one department. No more than two may be introductory. *Note*: Courses may be drawn from any of the physical and biological or life sciences.
2. *Tutorials*:
    1. *Sophomore year:* History of Science 97 (one term) required, group tutorial. Letter-graded.
    2. *Junior year:* History of Science 98 (one term) required. Letter-graded.
3. *Thesis*: None.
4. *General Examination:* None.
5. *Other information:*
    1. Two non-letter graded courses, including relevant Freshman Seminars taught by department faculty, may count for concentration credit.
    2. Students may elect to study abroad during their junior year. The department will count up to two approved courses out of residence towards concentration requirements. Please consult with the Director of Undergraduate Studies or the Manager of Student Programs for more information.

**Science and Society Track**
**Requirements for Honors Eligibility: 13 courses (52 credits)**

1. *Required courses:*
    1. History of Science 100: Knowing the World: Introduction to the History of Science.
    2. Four courses in the history of science, medicine and technology. Normally, these courses will normally be concentrated in your area of interest. Historically-oriented courses dealing with science, medicine or technology offered in other departments may be counted towards this requirement, with the approval of the Director of Undergraduate Studies. By senior year, some students may opt for a 200-level course, with the approval of the instructor. One course, if desired, may consist of supervised reading and research, beyond that required by tutorial
    3. Four courses in science, all in one coherent field, though not necessarily in one department. No more than two may be introductory. *Note*: Courses may be drawn from any of the physical and biological or life sciences.
2. *Tutorials*:
    1. *Sophomore year*: History of Science 97 (one term) required, group tutorial. Letter-graded.
    2. *Junior year*: History of Science 98 (one term) required. Letter-graded.
    3. *Senior year:* History of Science 99ab (two terms) required (preparation of senior honors thesis). Grade Sat/Unsat.
3. *Thesis*: Required.
4. *General Examination:* None.
5. *Other information:*
    1. *Pass/Fail:* Two non-letter graded courses, including relevant Freshman Seminars taught by department faculty, may count for concentration credit.
    2. *Study Abroad*: Students may elect to study abroad during their junior year. There is also the possibility of receiving two courses worth of credit for participation in a summer study abroad program led by a member of the department. Please consult with the Director of Undergraduate Studies or the Manager of Student Programs for more information.

**Science and Society Track**

**Non-Thesis Option: 12 courses (48 credits)**

1. *Required courses*: Same as **Basic Requirements**.
2. *Tutorials*: Same as **Basic Requirements**.
3. *Thesis*: None.
4. *General Examination*: None.
5. *Other information*: Same as **Basic Requirements**, plus the following:
    1. *Minimum concentration GPA*: Students must have a concentration GPA equivalent to the College-wide cut-off for degrees magna cum laude in field. Concentration grade-point averages will be calculated from a student's best twelve courses that meet the requirements, including final semester grades.
    2. *One graduate-level course*: Students must successfully complete (with a minimum B+ grade) at least one graduate-level (i.e., 200-level) course taught by a member of the History of Science faculty or in an appropriate other department (e.g., History). This requirement can also be met by completing a graduate-level track of work, as determined by the faculty instructor, offered within a 100-level course. The requirement is normally fulfilled in the senior year.
    3. *Determination of Departmental Honors*: A degree recommendation of Honors (not High or Highest Honors) will be awarded to students who meet these requirements.

**Medicine and Society**
**Requirements for Honors Eligibility: 14 courses (56 credits)**
The Medicine and Society focus in the Science and Society track is appropriate for students considering a career in medicine, health sciences, health policy, or who otherwise have a pronounced interest in the medical sciences. It allows students to combine course work in many of the scientific subjects required for medical school admission with a coherent program of courses that look at health and medicine from a range of historical, social scientific and humanistic perspectives.

1. *Required courses:*
    1. History of Science 100: Knowing the World: Introduction to the History of Science.
    2. Four courses in medical sciences. No more than two courses may be introductory. Courses should be relevant courses in chemistry, the life sciences, the physical sciences, mathematics, molecular and cellular biology, organismic and evolutionary biology, neurobiology, or human evolutionary biology.
    3. *Five additional courses:*
        1. At least four courses must be in the history of medicine or its allied fields (including the life sciences, mind sciences, bioethics, and biotechnology) and be taught by members of the Department of the History of Science. Up to two courses may (though are not required to be) drawn from other disciplines concerned with the social, ethical, or humanistic analysis of medicine and health (e.g., anthropology, economics, ethics, sociology).
        2. One course may be an open-ended elective that can be fulfilled by taking any of the courses offered by the Department of the History of Science.
2. *Tutorials*:
    1. *Sophomore year*: History of Science 97 (one term) required, group tutorial. Letter-graded.
    2. *Junior year*: History of Science 98 (one term) required. Letter-graded.
    3. *Senior year*: History of Science 99ab (two terms) required. Preparation of senior honors thesis; normally, this will deal with some historical question to do with medicine and health, broadly understood. Graded Sat/Unsat.
3. *Thesis*: Required.
4. *General Examination*: None.
5. *Other information:*
    1. *Pass/Fail*: Two non-letter graded courses, including relevant Freshman Seminars taught by department faculty, may count for concentration credit.
    2. *Study Abroad*: Students may elect to study abroad during their junior year. There is also the possibility of receiving two courses worth of credit for participation in a summer study abroad program led by a member of the department. Please consult with the Director of Undergraduate Studies or the Manager of Student Programs for more information.
    3. More information may be found in the Guide to the Focus in Medicine and Society, which is available on the History of Science department website.

**Mind, Brain, and Behavior Sciences**
**Requirements for Honors Eligibility: 14 courses (56 credits)**
Students interested in integrating serious study of the sciences of mind, brain, and behavior with thoughtful attention to sociocultural, philosophical, and historical questions raised by those sciences may pursue a Mind, Brain, and Behavior (MBB) focus in History and Science, developed in collaboration with the Standing Committee on Neuroscience and the University-wide Mind/ Brain/Behavior Interfaculty Initiative. (Mind, Brain, and Behavior tracks are also available in Computer Science, Human Evolutionary Biology, Linguistics, Neuroscience/Neurobiology, Philosophy, and Psychology.) Requirements for this program are based on those of the Science and Society track, except that:

1. At least three of the five sociocultural courses should be historical in nature. Up to two courses may be taken in an auxiliary area, such as:
    1. Health and Science Policy
    2. Medical Anthropology
    3. Religion and Ethics
    4. Philosophy of Mind & Behavior
2. The four courses in science must include Psychology 1 (Introduction to Psychological Science); the remaining three courses in science must include MCB 80 (ordinarily in the sophomore year), and at least two advanced science courses that focus in one of the following areas (in some circumstances, courses from two areas may be combined):
    1. Cognitive Systems
    2. Psychopathology
    3. Human Evolutionary Biology
    4. Child Development and the Brain
    5. Computational Neuroscience
    6. Neurobiology
3. Students pursuing the MBB track are also expected to participate in the University-wide MBB research milieu, including a non-credit senior year seminar for MBB thesis writers.

**Technology, Information, and Society**
**Basic Requirements: 12 courses (48 credits)**

1. *Required courses:*
    1. History of Science 100: Knowing the World: Introduction to the History of Science.
    2. Four courses in the history of science and technology designed to study the larger historical, ethical, and social implications of technology, engineering, and information in the modern world. Two of the four courses may be taken in the General Education program, but two should normally be at least 100-level courses in the History of Science department. Normally, one of the courses may be taken in an area outside the primary focus (e.g., history of medicine).
    3. Five courses in computer science or an area of engineering taught in the College (bioengineering, electrical engineering, mechanical engineering, environmental science and engineering). No more than two may be introductory. Note: Normally, students will begin with a foundational course recommended by the relevant science department and then take a minimum of four additional courses.
2. *Tutorials*:
    1. *Sophomore year*: History of Science 97 (one term) required, group tutorial. Letter-graded.
    2. *Junior year:* History of Science 98 (one term) required. Letter-graded.
3. *Thesis*: None.
4. *General Examination*: None.
5. *Other information:*
    1. Two non-letter graded courses, including relevant Freshman Seminars taught by department faculty, may count for concentration credit.
    2. Students may elect to study abroad during their junior year. The department will count up to two approved courses out of residence towards concentration requirements. Please consult with the Director of Undergraduate Studies or the Manager of Student Programs for more information.

**Technology, Information, and Society**
**Requirements for Honors Eligibility: 14 courses (56 credits)**

1. *Required courses:*
    1. History of Science 100: Knowing the World: Introduction to the History of Science.
    2. Four courses in the history of science and technology designed to study the larger historical, ethical, and social implications of technology, engineering, and information in the modern world. Two of the four courses may be taken in the General Education program, but two should normally be at least 100-level courses in the History of Science department. Normally, one of the courses may be taken in an area outside the primary focus (e.g., history of medicine).
    3. Five courses in computer science or an area of engineering taught in the College (bioengineering, electrical engineering, mechanical engineering, environmental science and engineering). No more than two may be introductory. Note: Normally, students will begin with a foundational course recommended by the relevant science department and then take a minimum of four additional courses.
2. *Tutorials*:
    1. *Sophomore year*: History of Science 97 (one term) required, group tutorial. Letter-graded.
    2. *Junior year*: History of Science 98 (one term) required. Letter-graded.
    3. *Senior year*: History of Science 99ab (two terms) required. Preparation of senior honors thesis; normally, this will deal with some historical question to do with technology, information, and society, broadly understood. Graded Sat/Unsat.
3. *Thesis*: Required.
4. *General Examination*: None.
5. *Other information:*
    1. *Pass/Fail:* Two non-letter graded courses, including relevant Freshman Seminars taught by department faculty, may count for concentration credit.
    2. *Study Abroad*: Students may elect to study abroad during their junior year. There is also the possibility of receiving two courses worth of credit for participation in a summer study abroad program led by a member of the department. Please consult with the Director of Undergraduate Studies or the Manager of Student Programs for more information.

**Technology, Information, and Society**
**Non-thesis Option: 13 courses (52 credits)**

1. *Required courses*: Same as **Basic Requirements**.
2. *Tutorials*: Same as **Basic Requirements**.
3. *Thesis*: None.
4. *General Examination*: None.
5. *Other information*: Same as **Basic Requirements**, plus the following:
    1. *Minimum concentration GPA*: Students must have a concentration GPA equivalent to the College-wide cut-off for degrees magna cum laude in field. Concentration grade-point averages will be calculated from a student's best twelve courses that meet the requirements, including final semester grades.
    2. *One graduate-level course*: Students must successfully complete (with a minimum B+ grade) at least one graduate-level (i.e., 200-level) course taught by a member of the History of Science faculty or in an appropriate other department (e.g., History). This requirement can also be met by completing a graduate-level track of work, as determined by the faculty instructor, offered within a 100-level course. The requirement is normally fulfilled in the senior year.
    3. *Determination of Departmental Honors*: A degree recommendation of Honors (not High or Highest Honors) will be awarded to students who meet these requirements.

**ADVISING**
Anne Harrington, Director of Undergraduate Studies, has overall responsibility for advising in the concentration. She is also available for individual consultation (aharring@fas.harvard.edu). Students seeking advice on course selection, or any other aspect of the concentration, should first contact Alice Belser, the Manager of Student Programs (ajbelser@fas.harvard.edu). Faculty in charge of students' history of science tutorials also function as advisers: sophomores may consult with the faculty in charge of the sophomore tutorial; juniors with faculty responsible for their junior tutorials; and seniors with the senior tutorial course head. The concentration also offers support for students in the houses, with our House Adviser program.
For up-to-date information on advising in History and Science, please see the History of Science website or the Advising Programs Office website.

**HOW TO FIND OUT MORE**
For more information, students can contact the Manager of Student Programs, Alice Belser, ajbelser@fas.harvard.edu, 617-495-3742, Science Center 355, or the Director of Undergraduate Studies, Professor Anne Harrington, aharring@fas.harvard.edu, Science Center 360. The Department's main website is histsci.fas.harvard.edu.

**ENROLLMENT STATISTICS**
**Number of Concentrators as of December**

| Concentrators | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| History and Science | 109 | 116 | 135 | 118 | 121 | 102 | 108 | 96 | 107 | 105 | 104 | 109 |
| History and Science + another field | 4 | 1 | 1 | 3 | 5 | 7 | 2 | 1 | 3 | 7 | 9 | 21 |
| Another field + History and Science | 1 | 1 | 2 | 5 | 3 | 1 | 0 | 0 | 0 | 1 | 1 | 3 |

# History of Art and Architecture

**Professor Joseph Koerner, Director of Undergraduate Studies**

The History of Art and Architecture concentration offers training in the historical interpretation and critical analysis of the visual arts and architecture. It develops the skills of visual discrimination and verbal expression fundamental to art historical analysis.

Encompassing material from the widest range of geographic and historical origins, art history is itself a multifaceted discipline embracing many different methods, perspectives and interests. Sometimes it deduces from works of art the time and place of their making, or the identity of their makers. Sometimes it examines how concepts, ideals, and sensibilities of people of the past are expressed in their art, and further, how that art influenced wider aspects of their culture. Sometimes it explores within large-scale fabrications (buildings, towns, cities) the dynamic between human and natural worlds. These and other approaches are reflected in the teaching and scholarship of the History of Art and Architecture faculty.

Training in the critical analysis of art seeks to clarify the perception—and understanding—of how artworks relate to the techniques and materials used in their making, and to the environment in which they are seen. It also fosters the ability to make and explain judgments of quality and value. Instruction in critical analysis is aided by the history of art and architecture department's partnership with one of the world's greatest teaching museums, comprising the Fogg, Busch-Reisinger, and Sackler Museums. This offers students a unique opportunity of first-hand study of original works of art in many media.

Concentration requirements ensure that students are well versed in both the historical and critical facets of the field. Generally, course work offers coverage of the history of art, while a sequence of small-group tutorials develops critical skills. For students with a special interest in architecture, the concentration offers courses on architectural history and urban planning, while also helping to advise in, and coordinate, relevant coursework undertaken beyond the department. Courses in the History of Art and Architecture undergraduate curriculum are structured as a three-tier system, consisting of a sequence of entry-level and field-specific introductory courses, upper-level courses, and tutorials.

History of Art and Architecture (HAA) 10, and HAA 11 are general, conceptual introductions (to world art from pre-history to the present, history of later western art, and history of world architecture, respectively) each of which could serve as a point of entry into the courses and concentration of History of Art and Architecture, as would the HUM 20, "A Colloquium in the Visual Arts".

Tutorials are small-group seminars which discuss the methodology of the discipline or examine a specific research topic in the discipline. These are intended to provide increasing expertise in critical and

analytical thinking, and serve as a basis for independent senior research projects. The senior thesis offers a student the opportunity to apply in greater depth one or more of the methods and aims developed in courses and tutorials, although, of course, theses often deal with subjects not included in class work.

The concentration in History of Art and Architecture can be pursued in conjunction with several other concentrations, most commonly Visual and Environmental Studies, English, Anthropology, Literature, area studies, or Romance Languages. Together with the Departments of the Classics, Near Eastern Languages and Civilizations, and Anthropology, the Department of History of Art and Architecture initiates students in the study of archaeology.

Architecture Studies is a track within the History of Art and Architecture concentration, jointly administered by the History of Art and Architecture and the Graduate School of Design. The track has its own requirements, which are detailed below. Students wishing to pursue other specific interests may receive advising from appropriate faculty as arranged by the director of undergraduate studies.

Requirements for all concentrators, joint and full, provide exposure to a variety of areas within art history, as well as allow for the selection of a major field focus from among the following: African, Ancient (Egypt, Ancient Near East, Greece, Rome), Architecture, Baroque and Rococo, Byzantine, Chinese, Japanese, South Asian, Islamic, Latin American/Pre-Columbian, Medieval, Modern and Contemporary, and Renaissance.

A History of Art and Architecture concentration is an effective core to a liberal arts education, and not merely pre-professional training for future art historians. The history of art and architecture is virtually unique among academic disciplines in studying the products of societies in every part of the world over the entire span of history, from the Paleolithic cave paintings to the works of our closest contemporaries.

Students concerned with joint concentration, credit for work done elsewhere, and late transfer into History of Art and Architecture should consult with the director of undergraduate studies. All concentrators should arrange advising appointments with the director of undergraduate studies at the start of each term.

**REQUIREMENTS**
**Basic Requirements: 12 courses (48 credits)**

1. *Required courses:*
    1. Three courses from offered introductory courses, numbered History of Art and Architecture 1–89. (Freshmen considering the concentration should normally take at least one of these in their freshman year, although this is not a prerequisite for the concentration.)
    2. Three courses in a major field chosen from the list in item 5c.
    3. Three courses in at least two different areas outside the major field to be chosen from courses with two or three-digit numeration or offerings in the Program in General Education.
    4. One course of History of Art and Architecture 97r (see item 2a).
    5. One course of History of Art and Architecture 98ar (see item 2b).
    6. One course of History of Art and Architecture 98br (see item 2b).
    7. *Note*: Of the twelve courses required, a distribution requirement must be fulfilled as follows:
        1. One course in items 1a, 1b, 1c, or 1d must be in Asian, Islamic, African, or Latin American/Pre-Columbian if the major field is in any area of European or North American art or architecture; or one course in European or North American art or architecture if the major field is Asian, Islamic, African, or Latin American/Pre-Columbian.
        2. Two courses in two different periods other than that of the major field. No more than five of the series of courses numbered History of Art and Architecture 10-89 may be taken for concentration credit, except with the approval of the director of undergraduate studies. The balance should be tutorials and upper-level courses.
2. *Tutorials*:
    1. *Sophomore year*: History of Art and Architecture 97r (one term) required. Letter-graded. Group tutorial, is an introduction to the methods and research skills of art history.
    2. *Junior year*: History of Art and Architecture 98ar (one term) and History of Art and Architecture 98br (one term) required. Letter-graded. History of Art and Architecture 98ar, faculty tutorial, consists of weekly meetings with designated faculty, where regular reading and writing assignments are focused on a topic of mutual interest. History of Art and

Architecture 98br offers concentrators the choice of several study groups investigating a particular field of art history. History of Art and Architecture 98ar and 98br need not be taken in sequential order.

3. *Thesis*: None.
4. *General Examinations*: None.
5. *Other information:*
    1. History of art and architecture courses may include: General Education courses given by members of the Department of History of Art and Architecture; all historical courses in visual and environmental studies; classical archaeology; selected courses in the Program in General Education, the humanities, anthropology, and African and African American studies; certain offerings of the Graduate School of Design; and certain Freshman Seminars. The designation of any course taken outside the Department of History of Art and Architecture as a concentration course is subject to the approval of the director of undergraduate studies. No more than two half-courses may be "imported" into the concentration by petition over and above those which are already cross-listed; exceptions for coursework done as part of study abroad programs will be considered on a case-by-case basis.
    2. *Pass/Fail*: Normally, no work taken Pass/Fail will be accepted as part of the concentration; however, the director of undergraduate studies may make an exception for not more than one Freshman Seminar (graded SAT/UNS).
    3. *Major fields*: Students elect one of the categories below as an area of focus.

| | |
|---|---|
| African | Ancient |
| Architecture | Baroque and Rococo |
| Byzantine | Chinese |
| South Asian | Islamic |
| Japanese | Latin American/Pre-Columbian |
| Medieval | Modern and Contemporary |
| Renaissance | |

**Requirements for Honors Eligibility: 14 courses (56 credits)**

1. *Required courses:* Same as **Basic Requirements**.
2. *Tutorials*:
    1. Same as **Basic Requirements**.
    2. Same as **Basic Requirements**.
    3. *Senior Year*: History of Art and Architecture 99 (two terms). Graded SAT/UNS. In the fall term, History of Art and Architecture 99 includes several group tutorial meetings with the senior honors adviser, where assignments are aimed at facilitating the writing of a senior thesis.
3. *Thesis*: Required, ordinarily written as part of History of Art and Architecture 99. A student who does not complete the thesis but wishes to receive year-long 8-credit or year 4-credit course credit for History of Art and Architecture 99 must submit a paper or other substantial piece of work. Only students with a minimum grade point average of 3.00 within the concentration are eligible to write a thesis.
4. *General Examination*: None.

5. *Other information*: Same as **Basic Requirements**.

**Architecture Studies Track**
**Requirements for Honors Eligibility: 14 courses (56 credits) and thesis**

Architecture Studies is a track within the History of Art and Architecture concentration, jointly administered by the History of Art and Architecture and the Graduate School of Design, it pursues the study of architecture within the spirit of a liberal arts education.

The track has its own requirements, which are detailed below. A statement of purpose and a proposed course plan is required for Architecture Studies. Interested students should contact the HAA coordinator of undergraduate studies for further information on this process and on the curriculum overall.

Architecture stands at the intersection of creative imagination, practical realization, and social use, comprising not only material structures of human occupation, but also the dynamic processes that shape human action and experience. The study of architecture integrates technical and humanistic methods of inquiry with written and visual modes of representation, in traditional classroom venues and “making”-based studios designed especially for this concentration.

Within the Architecture Studies track, two broad areas of emphasis may be chosen:
(1) History and Theory, which includes the study of architecture, cities, landscapes, designed objects, ornament, architectural photography, and material culture, in diverse places and time periods including Africa, the Americas, China, Europe, India, the Islamic world, and Japan, all from antiquity to the present; and (2) Design Studies, which includes investigations into the social and aesthetic dimensions of contemporary architecture, landscapes, cities, and territories, emphasizing issues of sustainable environments, new forms of urbanism, and the use of digital media for visualization and analysis.

Both the “History and Theory” and the “Design Studies” areas teach architecture within the larger visual culture.

1. *Required courses*
    1. HAA 11, Landmarks of World Architecture - or - HAA 22, The Architectural Imagination.
    2. Three courses in architecture or a related field from offered courses numbered HAA 12-89 and 100-199, adhering to the following guidelines: at least one course in Asian, Islamic, African, South Asian, or Latin American/Pre-Columbian art or architecture; one course in any area of European or North American architecture; and one course in architecture before 1800. See the Undergraduate Coordinator for a list of approved courses.
    3. HAA 96a, Architecture Studio 1: Transformations (course). Studio may be taken sophomore or junior year. No prerequisite. Studio meets for six hours per week.
    4. HAA 96b, Architecture Studio 2: Connections (course). Studio may be taken junior or senior year. HAA 96a must be taken as a prerequisite. Studio meets for six hours per week.
    5. One course of HAA 98ar (see item 3a).
    6. One course of HAA 97r (see item 3b).
2. *Distribution Requirements for Areas of Emphasis*
    1. *History and Theory*. Four courses in architecture or a related field, from offered courses numbered HAA 100-299 or related courses at the GSD, with approval by the Director of Undergraduate Studies (e.g., GSD 4121, 4122, 4223, 4141, 4142). Courses should be balanced between the two departments. Courses in the HAA 200 range require permission of instructor. Other courses from the HAA or GSD rosters, or courses from other departments, may be substituted with approval of the DUS (see item 6a).

    3. *-or-*

    1. *Design Studies*. Four courses from offered courses that investigate design media, and the social, ecological, and aesthetic dimensions of environments, numbered HAA 100-199 or related course at the GSD with approval by the Director of Undergraduate Studies (e.g., GSD 2223, 3241, 3242, 3332). Courses should be balanced between the two departments. GSD courses require permission of instructor. Other courses from the HAA or GSD rosters, or courses from other departments, may be substituted with approval of the DUS (see item 6a)
4. *Tutorials*:
    1. *Junior Year*: History of Art and Architecture 98ar (one term) required. Letter-graded. Tutorial led by individual faculty member, offers concentrators the choice of several topics in the field of art and architectural history.

2. *Sophomore Year*: History of Art and Architecture 97r (one term) required. Letter-graded. History of Art and Architecture 97r is an introduction to the methods and research skills of art and architectural history.

5. *Thesis*: None required.
6. *General Examinations*: None.
7. *Other information:*
    1. The designation as a concentration course of any course taken outside of those listed above or on the program's list of approved courses is subject to the approval of the Director of Undergraduate Studies. No more than two courses may be "imported" into the concentration by petition over and above those which are already cross-listed; exceptions for coursework done as part of study abroad programs will be considered on a case-by-case basis.
    2. *Pass/Fail*: Normally, no work taken Pass/Fail will be accepted as part of the concentration; however, the Director of Undergraduate Studies may make an exception for not more than one Freshman Seminar (graded SAT/UNS).

**Architecture Studies Track**
**Requirements for Honors Eligibility: 14 courses (56 credits) and thesis**

1. *Required courses*: Same as **Basic Requirements**
2. *Tutorials*:
    1. Same as **Basic Requirements.**
    2. Same as **Basic Requirements**
    3. *Senior Year*: History of Art and Architecture 99 (two terms). Graded SAT/UNS. In the fall term, History of Art and Architecture 99 includes several group tutorial meetings with the senior honors adviser, where assignments are aimed at facilitating the writing of a senior thesis.
3. *Thesis*: Required, ordinarily written as part of History of Art and Architecture 99. A student who does not complete the thesis but wishes to receive year-long 8-credit or year 4-credit course credit for History of Art and Architecture 99 must submit a paper or other substantial piece of work. Only students with a minimum grade point average of 3.00 within the concentration are eligible to write a thesis.
4. *General Examination*: None.
5. *Other information:* Same as **Basic Requirements**.

**ADVISING**

Departmental academic advising is provided by the faculty, and by the Director of Undergraduate Studies, Professor Joseph Koerner who meets individually with concentrators to discuss course selection, tutorials, and thesis topics (usually at the beginning of each term and by appointment at other times).

Students are reminded, however, that they are each ultimately responsible for the fulfillment of concentration requirements, and should check regularly on the current status of their progress. Procedural information and advice is available throughout the year in the Undergraduate Office. Please contact the Coordinator of Undergraduate Studies, Thomas Batchelder at the Sackler Building,485 Broadway, (617-495-2310), who is available on a walk-in basis during most regular office hours. Senior Honors Adviser is Professor Felipe Pereda and Director of Graduate Studies is Professor Ewa Lajer-Burcharth. Our Department Chairman is Professor David Roxburgh.

**RESOURCES**
History of Art and Architecture concentrators benefit from the unusually rich University collections of Harvard's five museums: the Fogg, Sackler, Busch-Reisinger (-the Harvard Art Museums), Semitic, and Peabody museums containing Western, Asian, and ethnographic art. Concentrators often have an opportunity to be involved in aspects of museum operations, working with curators and museum staff to research pieces in the collection and/or share in the mounting of exhibitions. Harvard's library holdings in art and archaeology include more than 250,000 books and more than 1,500,000 photographs and slides.

The Museum of Fine Arts, the Isabella Stewart Gardner Museum, and the Institute of Contemporary Arts are three of Boston's great cultural resources. Entrance to these institutions is free to undergraduates who show their Harvard ID cards at the door.

**HOW TO FIND OUT MORE**

For further information regarding the concentration please visit the department website: https://haa.fas.harvard.edu/why-study-art-history

Office hours: Monday through Friday, 9–5.

**ENROLLMENT STATISTICS**
**Number of Concentrators as of December**

| Concentrators | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| History of Art and Architecture | 62 | 52 | 60 | 63 | 69 | 63 | 61 | 45 | 36 | 28 | 35 | 35 |
| History of Art and Architecture + another field | 4 | 4 | 2 | 0 | 1 | 2 | 3 | 0 | 0 | 4 | 7 | 8 |
| Another field + History of Art and Architecture | 6 | 3 | 3 | 2 | 3 | 3 | 4 | 8 | 0 | 6 | 6 | 8 |

# Human Developmental and Regenerative Biology

**Dr. William J. Anderson, Director of Undergraduate Studies**
**Dr. Amie L. Holmes, Assistant Director of Undergraduate Studies**

Human Developmental and Regenerative Biology (HDRB) is a life science concentration that educates students on how human beings develop from a fertilized egg, are maintained and repaired throughout adulthood, and age till life's end. Students will be given a broad education in modern life sciences by studying important biological principles within the specific rubric of the developing and regenerating body. By adding an explicit and heavy emphasis on hands-on research opportunities in all four undergraduate years, HDRB will engage students with an interest in research and take advantage of Harvard's special strengths as a teaching college and research university.

To the extent that "translational" or "applied" research focuses on the application of discoveries made in model systems to humans, the HDRB concentration will embrace the opposite approach. Its emphasis will be on rigorous basic science with a focus on what the study of humans reveals about fundamental biology and reciprocally, what a greater understanding of biology teaches us about ourselves. We believe that a fundamental understanding of how the human organism develops and maintains itself requires foundational knowledge in life sciences, chemistry, and physical sciences, which are in turn dependent on a fundamental knowledge of mathematics. The requirements for the concentration reflect this view.

Students begin their study via foundational courses in the life sciences. Ordinarily, students next will enroll in Stem Cell and Regenerative Biology (SCRB) 10, which is a gateway course for the HDRB concentration. SCRB 10 introduces concentrators to concepts presented in depth by later electives. Students will delve deeper into more focused topics through at least three upper level lecture or laboratory courses. SCRB 91r, which serves as the concentration tutorial, is ordinarily taken in the junior year. SCRB 91r is a semester-long course of independent laboratory research. Honors candidates must also enroll in SCRB 99 and submit a thesis.
The framework of the concentration takes advantage of faculty strength in both the Faculty of Arts and Sciences, and Harvard Medical School through the Department of Stem Cell and Regenerative Biology. The curriculum provides a range of courses that will benefit students interested in medicine and

biomedical research, as well as other fields in which a comprehensive understanding of human biology is needed.

**REQUIREMENTS**
**Basic Requirements: 13 courses (52 credits)**

1. *Required courses:*
    1. *Life Sciences (2 courses)*: Life Sciences 1a (or Life and Physical Sciences A) and Life Sciences 1b.
    2. *Quantitative Science (1 course)*: Above the level of Mathematics 1a. Ordinarily, this is fulfilled by Math 1b, Math 19a, Math 21a, or equivalent. This can also be fulfilled with a course in Statistics (Stat 102, 104, 107, 110, 115, or equivalent).
    3. *Chemistry (1 course)*: Physical Sciences 1, Physical Sciences 11, or equivalent.
    4. *Human Developmental and Regenerative Biology (1 course)*: SCRB 10. Concentrators would ordinarily take this course in the first semester of their sophomore year.
    5. *Molecular Biology (1 course)*: MCB 60, SCRB 50, or equivalent.
    6. *Physics (1 course)*: Physical Sciences 2 or equivalent.
    7. *Organic Chemistry (2 courses)*: Chemistry 17 and Chemistry 27, or Chemistry 20 and Chemistry 30, or equivalent.
    8. *Advanced courses*: Three courses above the introductory level. Any of the 100-level SCRB courses may be used to fulfill these requirements. Certain advanced courses in molecular and cellular biology, chemistry and chemical biology, and organismic and evolutionary biology may also be used to fulfill this requirement. Consult the concentration office for a list of courses categorized by area of inquiry.
    9. *Research experience and tutorial*: SCRB 91r. All concentrators will be required to carry out at least one semester of supervised undergraduate research in the lab of a SCRB faculty member, Harvard Stem Cell Institute Principal faculty member, or others with the permission of the Head Tutor. Consult the concentration office for a list of approved faculty members. Concurrently with this research experience, students will meet with their undergraduate research adviser twice per month to discuss progress in their coursework, their research, and current literature in their field of inquiry. Ordinarily, these two components will be combined in one term of SCRB 91r, usually taken in the junior year. Students carrying out thesis research ordinarily enroll in two terms of SCRB 99, one of which may be used to fulfill this requirement.
2. *Thesis*: None. See Requirements for Honors Eligibility.
3. *General Examination*: None.
4. *Other information:*
    1. *Pass/Fail*: Courses counted for concentration credit may not be taken Pass/Fail.
    2. Advanced Placement credits may be counted (with or without Advanced Standing), provided the total number of concentration courses taken at Harvard does not fall below twelve courses, and provided the student does not enroll in a course for which the advanced placement credit was granted. Advanced Placement credit for Physical Sciences 1 may ordinarily be counted if the student begins with Chemistry 17 or 20.
    3. Certain courses offered by the School of Engineering and Applied Sciences and by the Division of Medical Sciences may also be counted for concentration credit if appropriate.
    4. Courses required to fulfill General Education subject areas may also be counted toward concentration credit where appropriate.

**Requirements for Honors Eligibility: 15 courses (60 credits)**

1. *Required courses*: Same as **Basic Requirements**.
2. *Thesis*: Required. Students enroll in two terms of SCRB 99 during the senior year.
3. See 1l. (*Research experience and tutorial*) under **Basic Requirements**.
4. *General Examination*: None.
5. *Other information*: Same as Basic Requirements.

**ADVISING**
The Assistant Director of Undergraduate Studies for HDRB, Dr. Amie Holmes, is available to concentrators and pre-concentrators to provide guidance on course selection, laboratory research, and the fulfillment of concentration requirements. To learn more, visit http://lifesciences.fas.harvard.edu/hdrb, or contact Dr. Holmes (amie_holmes@harvard.edu, 1-617-496-1417, or click HERE to schedule a one-

on-one meeting).

**HOW TO FIND OUT MORE**
The Director of Undergraduate Studies for HDRB is Dr. Bill Anderson and the Assistant Director of Undergraduate Studies is Dr. Amie Holmes. For more information about the HDRB concentration, visit the website. Students may also contact Dr. Amie Holmes (Bauer Room 206, 7 Divinity Avenue; 617-496-1417; amie_holmes@harvard.edu) for more information.

**ENROLLMENT STATISTICS**
**Number of Concentrators as of December**

| Concentrators | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Human Developmental and Regenerative Biology* | 50 | 95 | 141 | 146 | 159 | 176 | 172 | 146 | 123 | 107 | 93 |

*Human Developmental and Regenerative Biology does not participate in joint concentrations.

# Human Evolutionary Biology

**Professor Daniel Lieberman, Director of Undergraduate Studies**

The concentration in Human Evolutionary Biology (HEB) provides students with the skills and knowledge they need to investigate and answer questions about who we are, how we got here, and what makes us unique. Research in human evolutionary biology is increasingly influencing medical science, economics, linguistics, psychology, and political science, and HEB concentrators learn how to use an evolutionary perspective to help solve real world problems. Human evolutionary biologists use data at every level of biology, from genes to bodies to people in their ecological contexts, to answer questions such as:

- Why do humans walk upright?
- Are humans adapted to eating cooked food?
- What is the role of the gut microbiota in energy metabolism?
- How did human societies expand from small hunter-gatherer bands to vast nation states?
- Are culture and language unique to humans?
- What are the genetic bases for human traits?
- What is the role of hormones in human competition and gender identity?
- How can an evolutionary perspective be used to improve public health?
- What has been the impact of environmental change on humans in the past and present?

Human Evolutionary Biology (HEB) provides a general foundation in human and organismic biology as part of the life sciences cluster of concentrations.

All HEB concentrators receive a core introduction to basic evolutionary biology as well as human and nonhuman primate genetics, physiology, anatomy, behavioral biology, and paleontology. HEB courses also explore interactions between genes and environments, and the co-evolution of biology and culture.

Students interested in human cognition or psychology, who want to understand the evolutionary influences on our thoughts and behaviors, may pursue the thesis honors Mind, Brain and Behavior track within HEB (“MBB Track”). Requirements are below.
We encourage our students to get involved in research in HEB, and we offer many small, advanced courses for students to work intensively with members of the faculty. Opportunities vary from primarily lab-based research—such as in behavioral endocrinology, primate and human cognition, evolutionary genetics, physiology, anatomy, or nutrition—to field-based work—such as studying primates in East Africa or working on paleoanthropological excavations. Our faculty work closely with undergraduates on research projects of all kinds, for senior theses, research seminars and tutorial classes.

HEB offers a rigorous background in human evolutionary biology while encouraging interdisciplinary work. We offer students three options: the basic non-honors degree, thesis honors, and non-thesis honors. All students take Life Sciences 1a, Life Sciences 1b (or their equivalents), the sophomore tutorial, and a junior research seminar.

**REQUIREMENTS**
**Basic Requirements: 13 courses (52 credits)**

1. *Required Courses:*
    1. Life Sciences 1a (or LPS) and 1b or LS50a/b; normally in freshman year.
    2. Five courses, selected from those offered in HEB. Three of the five courses must fulfill subfield requirements in behavior, evolution, and anatomy/physiology. Courses are selected in close consultation with advisers.
    3. Four additional courses in related fields, to be chosen from: Integrative Biology, Molecular and Cellular Biology, Neurobiology, Chemistry, Physical Sciences, Math, Statistics, Computer Science, Archaeology, and approved courses from Psychology, History of Science, and more.
2. *Tutorials (All letter-graded)*
    1. *Sophomore year*: Sophomore tutorial (HEB 97, ordinarily taken in the spring term of the sophomore year). This seminar introduces the major issues and methods of human evolutionary biology through weekly readings and discussions and provides a shared experience for all concentrators.
    2. *Junior year*: Junior research seminar. Normally taken in the junior year (may be taken senior year), including an independent research component. Students may choose from a number of qualifying seminars.
3. *Thesis*: None.
4. *General Examination*: None.
5. *Other information:*
    1. *Pass/Fail*: Ordinarily all courses must be taken for a letter grade. All tutorials are letter graded. Freshman seminars and other courses that are appropriate for concentration credit and that are graded Sat/Unsat—such as courses taken while studying abroad—may count toward the concentration with the approval of a concentration adviser.
    2. *Languages*: No requirement.

**Requirements for Honors Eligibility: 15 courses (60 credits)**
**Thesis Track Honors**

1. *Required Courses*: Same as **Basic Requirements**.
2. *Tutorials (All letter-graded):*
    1. *Sophomore year*: Sophomore tutorial (ordinarily taken in the spring term of the sophomore year). Same as **Basic Requirements**.
    2. *Junior year*: Ordinarily thesis candidates take a thesis research-related course, either a junior research seminar or a supervised reading and research course (91r).
    3. *Senior year*: HEB 99a and HEB 99b (in the Fall and Spring, respectively), culminating in the submission of a senior thesis and participation in a thesis conversation with the adviser and other HEB faculty.
3. *Thesis*: Required.
4. *General Examination*: None.
5. *Other information*: Same as **Basic Requirements**.

**Non-Thesis Track Honors**

1. *Required Courses*: Same as **Basic Requirements**, plus two additional courses in HEB or related fields approved in advance by a Concentration Adviser. These courses are ordinarily advanced lectures, seminars, or supervised reading courses on a focused topic.
2. *Tutorials*:
    1. *Sophomore year*: Same as **Basic Requirements**.
    2. *Junior year*: Junior research seminar. Same as **Basic Requirements**.
    3. *Senior year*: None.
3. *Thesis*: None.
4. *Other information*: Same as **Basic Requirements**. Honors recommendations are based on concentration GPA.

**Human Evolutionary Biology/Mind, Brain, and Behavior Track**
**15 courses (60 credits)**

1. *Required Courses:*
    1. Life Sciences 1b (normally in freshman year) or LS50b.
    2. Science of Living Systems 20 or HEB 1280, Human Nature.
    3. MCB 80 or equivalent.
    4. SLS 16 or HEB 1386, plus two courses to be chosen from HEB.
    5. Two additional courses in Mind, Brain, and Behavior.
    6. Three additional courses in related fields. Qualifying courses same as for **Basic Requirements**.
2. *Tutorials (All letter-graded):*
    1. *Sophomore year*: Sophomore tutorial (ordinarily taken in the spring term of the sophomore year). Same as Basic Requirements.
    2. *Junior year*: One MBB-approved seminar course.
    3. *Senior year*: HEB 99a and HEB 99b (in the Fall and Spring, respectively), culminating in the submission of a senior thesis, followed by an oral examination on the thesis.
3. *Thesis*: Required.
4. *General Examination*: None.
5. *Other information*: Same as **Basic Requirements.**

**Portal Courses for exploring HEB:**

**Fall**:
Gen Ed 1056: Human Nature
LS 2: Evolutionary Human Physiology and Anatomy
HEB 1328: Evolutionary Medicine
**Spring**:
HEB 1330: Primate Social Behavior
GenEd 1027: Human Evolution and Human Health
HEB 1420: Human Evolutionary Anatomy

**ADVISING**

HEB concentration advisers (contact information below) provide guidance on matters such as course selection, research, concentration requirements, summer plans and career paths.
For up-to-date information on advising in Human Evolutionary Biology, please see the Advising Programs Office website.

**HOW TO FIND OUT MORE**

Concentration advisers: Dr. Neil Roach, Associate Concentration Adviser (Peabody 46, ntroach@fas.harvard.edu) and Dr. Carole Hooven, Concentration Adviser/ADUS (Peabody 52F, hooven@fas.harvard.edu).
Director of Undergraduate Studies: Prof. Daniel Lieberman, (danlieb@fas.harvard.edu)
For more information, visit the HEB page of the Life Sciences website.

**ENROLLMENT STATISTICS**
**Number of Concentrators as of December**

| Concentrators | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Human Evolutionary Biology | 132 | 130 | 133 | 138 | 156 | 133 | 105 | 99 | 105 | 95 | 96 | 77 |
| Human Evolutionary Biology + another field | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 3 |
| Another field + Human Evolutionary Biology | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |

# Integrative Biology

**Professor Gonzalo Giribet, Director of Undergraduate Studies**

The concentration in Integrative Biology (IB) is designed to provide students with opportunities to explore topics across all of biology, and also to focus in detail on areas of particular interest.

IB asks questions about the function, evolution, and interaction of organisms, both now and in the past. What kinds of organisms are there and how are they related? How is an organism's functional design and behavior related to its environment? What are the genetic and morphological mechanisms underlying an organism's development, and how is evolution influenced by development? Integrative biology can be approached in many ways, reflecting an interest in a specific group of organisms (e.g., plants, animals, microorganisms), in level of organization (e.g., ecological systems, population genetics), in approach (e.g., systematics, biogeography, biomechanics, developmental biology, mathematical theory, neurobiology), or in sampling broadly across multiple areas. IB is, therefore, inherently an interdisciplinary field, ranging over different levels of biological organization, evolutionary processes, taxa, and physiological and molecular systems. Courses emphasize student learning, critical thinking, and may include participation in research and field experiences, with the goal of fostering a foundation of knowledge and appetite for life-long learning, as students prepare for careers in the life sciences and related fields and professions.

Students who are considering IB as a concentration are encouraged to complete the three introductory courses (Life Sciences 1a, 1b, OEB 10) by the end of their sophomore year. From the foundation of these introductory courses, students explore one or more areas in depth by taking upper-level courses. Students are encouraged to consult the concentration website for further details on various pathways through the concentration (i.e., suggested combinations of mid-level and upper-level courses) and lists of faculty who can provide advice in these areas. Students may also design their own pathway.

For many students, the concentration will culminate in independent research leading to a senior thesis, but a thesis is not the only means by which a student may participate in research. The concentration website provides information on research opportunities in IB as well as general advice about how to identify and contact faculty whose research is of interest. The concentration also provides opportunities to study biological diversity in the field, whether close to home or abroad. IB does not participate in joint concentrations but will consider senior theses that incorporate work from a secondary field.

**REQUIREMENTS**
**13 courses (52 credits)**

1. *Required courses:*
    1. Three courses in introductory biology: Life Sciences 1a, Life Sciences 1b, OEB 10. (Life and Physical Sciences A can substitute for Life Sciences 1a; Life Sciences 50a and 50b can substitute for Life Sciences 1a and 1b).
    2. At least four courses introducing broad fields of biology to be chosen from OEB 11, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60; MCB 60, 63, 80, 121; Life Sciences 2; SCRB 10.
    3. Two advanced-level courses in biology, one of which may be a supervised research or reading course.
    4. At least four courses (two courses for students who have taken Life Sciences 50a and 50b) to be chosen from offerings in applied mathematics, chemistry, computer science (above the level of Computer Science 1), mathematics (above the level of Math 1a), physics, and statistics.
2. *Thesis*: Optional but required for Highest Honors in Field.
3. *Supervised Reading and Research Courses*: (OEB 91r, 99r). Any supervised research and reading course undertaken with mentors outside of OEB must be approved and co-sponsored by an OEB faculty member
4. *General Examination*: None.
5. *Pass/Fail*: All concentration requirements must be taken for letter-grade credit.

**ADVISING**
Questions should be addressed to the IB Concentration Adviser (Andrew Berry; 617-495-0684; berry@oeb.harvard.edu) or Director of Undergraduate Studies (Gonzalo Giribet; ggiribet@g.harvard.edu). Students considering doctoral studies in the life sciences should consult with Andrew Berry and other relevant faculty to ensure that their undergraduate program is appropriate to their interests and goals. Those contemplating careers in medicine, dentistry or veterinary medicine are encouraged to consult with the Office of Career Services and appropriate pre-

professional advisers regarding entrance requirements for these programs.

**RESOURCES**
In addition to faculty research laboratories, several special facilities offer unique and exciting opportunities for IB concentrators. These include a supercomputer cluster, a state of the art high-throughput DNA sequencing facility, imaging centers, greenhouses, and animal facilities. The Museum of Comparative Zoology (MCZ) houses extensive systematic collections of recent and fossil vertebrates and invertebrates. The Harvard University Herbaria (HUH) houses the Farlow reference library and Farlow Herbarium, the Gray Herbarium, and the Orchid Herbarium of Oakes Ames. The Botanical Museum houses the Ware collection of botanical models ("glass flowers"). The Arnold Arboretum in Jamaica Plain, the Harvard Forest in Petersham, and the Concord Field Station in Bedford also provide research facilities. Links to these and other facilities can be found on the OEB Department website.

**HOW TO FIND OUT MORE**
Director of Undergraduate Studies, IB: Professor Gonzalo Giribet, MCZ Labs 502, 26 Oxford Street (ggiribet@g.harvard.edu). More information about the IB concentration can be found at www.lifescience.fas.harvard.edu/ib. The IB Concentration Adviser is Dr. Andrew Berry, Biological Laboratories, Room 1082B (617-495-0684, berry@oeb.harvard.edu).

**ENROLLMENT STATISTICS**
**Number of Concentrators as of December**

| Concentrators | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *Integrative Biology | 34 | 84 | 107 | 120 | 119 | 135 | 137 | 130 | 119 | 110 | 122 | 134 |

*Integrative Biology does not participate in joint concentrations.

# Linguistics

**Professor Kate Davidson, Director of Undergraduate Studies**

Linguistics, the scientific study of language, is perhaps the ultimate interdisciplinary enterprise, cutting across the humanities, social sciences, cognitive sciences, physical sciences, and biological sciences. Since it is not taught in high school, most undergraduates, including many future Linguistics concentrators, only "discover" linguistics after they come to college. Some are intrigued by the prospect of discovering formal rules to model a complex form of behavior like language; others are interested in the relationship of natural languages to other symbolic systems; still others are curious about similarities and differences they have noticed among individual languages. In exploring these and similar topics, students of linguistics not only learn a great deal about a fascinating field; they also master a variety of conceptual and empirical techniques that stand them in good stead after graduation. Recent Harvard Linguistics concentrators have gone to graduate school in linguistics, mathematics, computer science, cognitive science, English, and music; to medical school, law school, and business school; and into employment in fields as diverse as editing, writing, translating, and language-processing software design.

The department understands that undergraduates are interested in linguistics for a variety of reasons. Some plan to pursue graduate studies in linguistics or a related discipline; some plan to go on to professional work; and some see a concentration in Linguistics as interesting and valuable intellectually, but do not base their future vocational plans upon it. The department has kept all of these considerations in mind in designing its course offerings and concentration requirements.

Many students who are curious about linguistics but who have never taken a linguistics course assume that it is chiefly a subject for people with an extensive background in foreign languages. This is incorrect. While it is true that some kinds of linguists need to have active control of a variety of languages, the overriding fact is that linguistics and language learning are completely separate pursuits. People who are "good at languages" are not always good at linguistics, and vice versa; many of the world's most successful professional linguists are fluent only in their native language.

The courses offered by the Department of Linguistics reflect the diversity of the field. The emphases are on linguistic theory, historical linguistics, and the relationship between language and cognition.

***Linguistic theory***
Every normal child learns a language between the ages of one and five. Linguistic theory seeks to characterize this knowledge explicitly and to account for the ease and speed with which humans acquire it. Since the bulk of the knowledge that enables us to speak and use language is unconscious, most people are unaware of its almost unbelievable complexity and richness. Nor is it obvious to the casual observer that the underlying structures of languages as superficially different as English, Zulu, and Navajo are deeply and fundamentally the same. The traditional branches of linguistic theory are syntax, the study of sentence structure; phonology, the study of the sounds and sound systems; morphology, the study of word structure; and semantics, the study of meaning.

***Historical linguistics***
All languages change over time, sometimes giving rise to one or more daughter languages and, eventually, to families of related languages. Depending on their specific interests, historical linguists may investigate the processes and principles by which language change occurs, or study the documented history of individual languages, or try to recover the prehistory of language families by using the "comparative method" to reconstruct the unattested common parent of a set of attested daughter languages. A much-studied example of a reconstructed language is "Proto-Indo-European," the parent language of the family that includes most of the ancient and modern languages of Europe (including English) and northern India.

***The Linguistics track in Mind, Brain, Behavior (MBB)***
Since language is a distinctively human characteristic, the study of language provides an important take-off point for investigating the complexities of the human mind/brain. Linguistics spearheaded the "cognitive revolution" in the 1950s and has occupied a privileged position in debates on cognitive issues ever since. At Harvard, the Mind/Brain/Behavior (MBB) Initiative was founded to help faculty in distinct research areas collaborate on projects making use of emerging techniques in neuroscience. One such technique, brain imaging, has long been of interest to linguists; newer experimental work is establishing connections between linguistic theory and language processing, language acquisition, language use, spatial and social cognition, evolutionary psychology and biology, and neuroscience.

The Linguistics/MBB track gives students an opportunity to delve into the neurobiological, psychological, philosophical, and evolutionary aspects of language, in the process becoming familiar with the different ways that researchers in these fields approach language-related problems. Another option encourages exploration of the relationships between language and computer science, including computational neuroscience. Whatever their specific choices, students who elect to concentrate in Linguistics/MBB graduate with a unique knowledge base and an invaluable set of skills and tools.

The implications of the study of language are broad and interdisciplinary. Modern linguistics theory attempts to characterize a very complex domain of human knowledge, and is thus an area of central concern to philosophers of mind as well as to cognitive psychologists. Furthermore, since the models of language constructed by theoretical linguists are formal in character and inspired by computational and mathematical methodologies, linguistics has a mutually beneficial relationship with computer science and the study of artificial intelligence. Linguistics also offers a firm understanding of the nature of language to literary scholars and language teachers. Finally, since languages are cultural artifacts, the reconstruction of an extinct language can shed light on the physical surroundings and the social institutions of its speakers, making linguistics a topic of interest to anthropologists, sociologists, and archaeologists.

***Concentration requirements***
Since high schools and even many universities do not offer courses in linguistics, the department's introductory courses presuppose no prior background in the field. Many linguistics concentrators, in fact, were unaware of the existence of linguistics as a subject before they took their first linguistics course at Harvard. Our courses therefore aim to introduce students to linguistic analysis and actively engage them in it. They also expose students to the great diversity found in the languages of the world. An extensive foreign language background is not required or assumed.

Concentrators in Linguistics can choose among three tracks: Linguistics; Linguistics with Related Field; and Linguistics with Mind, Brain, and Behavior. The three tracks have the same tutorial program and

share a core set of required courses that emphasize argumentation and methodology in phonology, syntax, semantics, and historical linguistics. The Linguistics with MBB track has an additional set of three required core courses that emphasize argumentation and methodology in mind, brain, and behavioral science. Students who choose the straight Linguistics track meet the remainder of the non-tutorial course requirements by taking a combination of more advanced linguistics courses within the department and linguistics-related offerings in other departments. Examples of linguistics-related offerings in other departments include courses on the linguistic structure of particular languages (e.g., History of the German Language) and on the computational, philosophical, and psychological aspects of language (e.g., Psychology of Language). Students who choose the Linguistics with Related Field combine courses in linguistics proper with linguistics-related courses in an approved second field such as anthropology, classics, computer science, or psychology. Students who choose Linguistics with MBB meet the remainder of the non-tutorial course requirement by taking a combination of more advanced courses on linguistics or on mind, brain, and behavior. Examples of MBB-related courses typically include courses offered by the philosophy department (e.g., Philosophy of Language), by the psychology department (e.g., Cognitive Neuropsychology), and by the computer science department (e.g., Natural Language Processing).

Note that the Linguistics with Related Field and the Linguistics with MBB tracks are not the same as a joint concentration in Linguistics and another field. Students should consult with both concentrations for finalizing their Crimson Cart in my.harvard. The other field may require additional courses beyond those needed for the Linguistics with Related Field or Linguistics with MBB tracks. Such students graduate with a concentration in Linguistics and the other field (e.g., Linguistics and Mathematics; Linguistics and Anthropology). Students in the Linguistics with Related Field or with MBB tracks, on the other hand, have their study plans approved only in Linguistics, and graduate with a concentration in Linguistics alone. Students in the Linguistics with MBB track receive a certificate from the MBB program as well. Additional information about the requirements for joint concentrators is provided below.

**OPTIONS**

- Linguistics
- Linguistics with Related Field
- Linguistics with MBB
- Joint Concentration with a second field

**REQUIREMENTS**
**For students entering the College in Fall 2011 or later. Other students should refer to the Handbook for Students from the year they declared their concentration.**
**Linguistics Track**
**Regular Requirements: 12 courses (48 credits); 1 language requirement; no thesis.**
**Requirements for Honors Eligibility: 14 courses (2 additional thesis-writing tutorials) (56 credits); 2 language requirements; thesis.**

1. *Required non-tutorial courses (9 courses):*
    1. *One of the introductory courses:*
        1. **Linguistics 83**: Language, Culture, and Cognition
        2. **Linguistics 101**: The Science of Linguistics: An Introduction
        3. **Freshman Seminar** in Linguistics (e.g. **34x**: Language and Prehistory; **61Q**: the Origins of Meaning)
        4. **Linguistics 102**: Sentence Structure
        5. **Linguistics 105**: Sounds of Language
        6. **Linguistics 106:** Knowledge of Meaning
    2. *One of the following:*
        1. **Linguistics 104**: Word Structure
        2. **Linguistics 107**: Introduction to Indo-European
        3. L**inguistics 108**: Introduction to Historical Linguistics
    3. *Four additional courses*, at least one of which must be in linguistics. Courses in Linguistics include any course in the Linguistics Department, or a course on a Linguistics topic in another department. For the other three courses, any course in Linguistics or in a Related Field (e.g. Philosophy of the Mind; Neurobiology of Behavior) will do. Alternatives outside of this domain must be approved by the Head Tutor.
2. *Required Tutorials* (Basic: 3 courses; for Honors eligibility: 5 courses):

1. *Sophomore year*: **Linguistics 97** is required in the spring term and consists of two consecutive six-week small-group tutorials.
2. *Junior year*: **Linguistics 98a** (fall) consists of two consecutive six-week small-group tutorials. **Linguistics 98b** (spring) is a one-term individual tutorial with a faculty member (for Honors candidates) or two consecutive six-week small-group tutorials (for non-honors candidates).
    1. *Note*: The specific topics covered in group tutorials change from year to year. Students are free to choose the tutorials they find most interesting, though the Head Tutor may require a student to select a different tutorial if enrollments have exceeded a certain level.
    2. *Note*: For non-honors candidates, it is possible to replace Ling 98b with Linguistics 97r (taken twice) or with any other elective course in linguistics.
3. *Senior year*: **Linguistics 99a** (fall) and **99b** (spring), required for Honors candidates and focused on the research and writing of the senior Honors thesis. Linguistics 99a is a one-term group tutorial led by a faculty member in Linguistics with the participation of Honors candidates' thesis advisers. Linguistics 99b is a one-term individual tutorial with each Honors candidate's thesis adviser. Graded SAT/UNS.

3. *Required Languages:*
    1. Regular concentrators must demonstrate knowledge of one foreign language by the end of the junior year as required by the college (see language requirement in the Handbook for Students).
    2. Honors candidates must demonstrate a knowledge of an additional foreign language by the end of the senior year. This can be done in the following ways
        1. by being a native speaker of the language
        2. by obtaining at least a B grade in a year-long 8-credit, second year language course.
        3. by passing a Harvard College language placement exam (end of second year).
        4. in some cases, by passing a special departmental reading exam.
    3. Note: The same language course cannot count toward both the concentration requirement and the language requirement. But a language course that does not count toward the language requirement can count toward the concentration requirement as an additional half-course in linguistics or in the relevant related field.
    4. Note: Native speakers of a foreign language are normally not allowed to take courses of basic instruction in that language. Any such courses taken by a native speaker will not be counted toward the departmental language or related field requirements.
4. *Thesis*:
    1. **Regular**: Not required.
    2. **Honors candidates**: Required. During the fall term of the senior year, Honors candidates produce a thesis prospectus for approval by the Head Tutor. After completing the thesis, Honors candidates present the results of their research at a departmental colloquium during Reading Period of the spring term.
5. *Other information*: Courses taken Pass/Fail may not be counted for concentration credit.

**Linguistics with Related Field Track**
**Regular Requirements: 12 courses (48 credits); 1 language requirement; no thesis.**
**Requirements for Honors Eligibility: 14 courses (2 additional thesis-writing tutorials) (56 credits); 2 language requirements; thesis.**

1. *Required non-tutorial courses in Linguistics (5 courses):*
    1. *One of the following introductory courses:*
        1. **Linguistics 83**: Language, Structure, and Cognition
        2. **Linguistics 101**: The Science of Language: An Introduction
        3. **Freshman Seminar** in Linguistics (e.g. **34x**: Language and Prehistory; **61Q**: the Origins of Meaning)
    2. *Two of the following courses:*
        1. **Linguistics 102**: Sentence Structure.
        2. **Linguistics 104**: Word Structure.
        3. **Linguistics 105**: Sounds of Language.
        4. **Linguistics 106**: Knowledge of Meaning.
        5. **Linguistics 107**: Introduction to Indo-European, or
        6. **Linguistics 108**: Introduction to Historical Linguistics.
    3. *Two additional courses in Linguistics*
    4. *Four courses in a related field* (for example, psychology, Romance languages, computer

science, etc.). These may include courses relevant for the scientific study of language, but not directly within its purview; for example, not only courses such as “Semitic Linguistics” are acceptable, but also courses such as “Complex Fournier Analysis” and “Philosophy of the Mind.” Each program of study is approved on an individual basis by the Head Tutor.

2. *Required Tutorials*: Same as **Linguistics Track**.
3. *Required Languages*: Same as **Linguistics Track**.
4. *Thesis*: Same as **Linguistics Track**.
5. *Other information:*
    1. *Pass/Fail*: Courses taken Pass/Fail may not be counted for concentration credit.
    2. Students with an unusually strong background may be permitted to substitute another linguistics course for Linguistics 101.

**Linguistics with Mind, Brain, and Behavior (MBB) Track**
**Requirements: 14 courses (2 additional thesis-writing tutorials) (56 credits); 2 language requirements; thesis.**

1. *Required non-tutorial courses (9 courses):*
    1. *Four required courses in Linguistics:*
        1. Linguistics 83: Language, Culture, and Cognition
        2. Linguistics 101: The Science of Language: An Introduction
        3. Freshman Seminar in Linguistics (e.g. 34x: Language and Prehistory; 61Q: the Origins of Meaning)
        4. Linguistics 102: Sentence Structure.
        5. Linguistics 105: Sounds of Language.
        6. Linguistics 106: Knowledge of Meaning.
    2. *Three required courses in MBB:*
        1. SLS20: Psychological Scienceb. MCB 80 or NEURO 80: Neurobiology of Behavior.
        2. An MBB interdisciplinary seminar (see the MBB website for more information).
    3. *One additional course in Linguistics.*
    4. *One additional course in MBB.*
        1. *Note*: No course can be counted doubly to satisfy requirements 1a-1c. The courses to be counted towards the MBB requirements must be approved by the Head Tutor. Approval is automatic if the course is chosen from those listed in the Requirements for the Linguistics with MBB Track (also available upon request from the department).
2. *Required Tutorials*: Same as **Linguistics Track - Honors**.
3. *Required Languages*: Concentrators in the MBB track must demonstrate knowledge of one foreign language by the end of the junior year as required by the college (see "Language Requirement" in the Handbook for Students).
4. *Thesis*: Same as **Linguistics Track - Honors**.
5. *General Information*: **Same as Linguistics Track**.
6. *Other information:*
    1. *Pass/Fail:* Courses taken Pass/Fail cannot be counted for concentration credit.
    2. *Study Abroad*: Courses taken abroad that are directly related to Linguistics count towards the relevant requirements. Please discuss your courses with the Head Tutor.C. Students with an unusually strong background may be permitted to substitute another linguistics course for Linguistics 101.

**Joint Concentrations**
*Note*: There is a crucial difference between the Linguistics with Related Field track or the Linguistics with MBB track and a joint concentration in Linguistics and another field. A student in Linguistics with Psychology as a related field or in Linguistics with MBB is solely under the jurisdiction of the Linguistics Department, while a student with a joint concentration in Linguistics and Psychology is under the jurisdiction of both Linguistics and Psychology—that is, the student needs to fulfill the requirements for joint concentration outlined by both fields. A student in Linguistics with Psychology as a related field graduates with a concentration in Linguistics; a student in Linguistics with MBB also graduates with a concentration in Linguistics and is awarded a certificate by the MBB program; a joint concentrator graduates with a concentration in Linguistics and Psychology.
Joint concentrations must be approved by both participating concentrations. Typically, joint concentrators take six courses in linguistics and six in the joint field and write a thesis that, to some degree, combines the two fields. Note that the same course cannot be counted as a required course for both fields simultaneously. Courses in the joint field should be selected in consultation with the Head Tutor of that

field. Under normal circumstances, the following courses will be taken:
***Linguistics as primary field (8 courses):***

1. One of the following introductory courses:
    1. **Linguistics 83**: Language, Structure, and Cognition
    2. **Linguistics 101**: The Science of Language: An Introduction
    3. **Freshman Seminar** in Linguistics (e.g. **34x**: Language and Prehistory; **61Q**: the Origins of Meaning)
2. Three of:
    1. **Linguistics 102**: Sentence Structure
    2. **Linguistics 104**: Word Structure
    3. **Linguistics 105**: Sounds of Language
    4. **Linguistics 106**: Knowledge of Meaning
    5. **Linguistics 107**: Introduction to Indo-European or Linguistics 108: Introduction to Historical Linguistics;
3. One additional course in Linguistics.
    1. **Linguistics 97r** or **Linguistics 98a** (1 term).
    2. **Linguistics 99a** and **Linguistics 99b** (senior tutorial)

***Linguistics as allied field (6 courses):***

1. **Linguistics 101** or **Linguistics 83** or **Freshman Seminar** in Linguistics (e.g. **34x**: Language and Prehistory; **61Q**: the Origins of Meaning)
2. Three of:
    1. **Linguistics 102**
    2. **Linguistics 104**
    3. **Linguistics 105**
    4. **Linguistics 106**
    5. **Linguistics 107** or **108**
3. Two additional courses in Linguistics.

Joint concentrators ordinarily also enroll in two terms of senior tutorial in the primary field (the field listed first). Thesis advisers may be drawn from either of the two departments, subject to approval by the DUSes of both concentrations.

**ADVISING**
The Head Tutor and Assistant Head Tutor meet with concentrators individually at the beginning of each term to approve course selection and determine tutorial assignments. In addition, they are available to meet with students during regularly scheduled office hours or by appointment. Concentrators are also encouraged to contact other members of the faculty to discuss specific linguistics issues throughout the term.
For up-to-date information on advising in Linguistics, please see the Advising Programs Office website.

**RESOURCES**
Concentrators are welcome to use the departmental lounge, library, and computing facilities located on the third floor of Boylston Hall. A phonetics lab where students can experiment with the acoustic and articulatory properties of the sounds of the world's languages is located in Boylston 334. Concentrators may also frequent the department's special collection of linguistic materials in Room B, on the top floor of Widener Library. Information about access to these locations can be obtained from the Department Administrator, Cheryl Murphy.

**STUDY ABROAD**
The Department of Linguistics encourages study abroad for concentrators. Students working on a specific language or language area may wish to spend a term or a summer abroad. They should discuss their options with the staff of the Office of International Education before meeting with the DUS. Under appropriate circumstances, work done abroad may be counted toward the concentration requirement. Concentrators are encouraged to discuss their interests with the DUS.

**HOW TO FIND OUT MORE**
For further information about the Linguistics concentration, please contact the Director of Undergraduate Studies, Professor Kate Davidson (kathryndavidson@fas.harvard.edu), or the Department Office located

on the third floor of Boylston Hall. The department website also contains a variety of useful information for undergraduates.

**ENROLLMENT STATISTICS**
**Number of Concentrators as of December**

| Concentrators | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Linguistics | 12 | 29 | 30 | 24 | 22 | 23 | 20 | 21 | 14 | 20 | 23 | 18 |
| Linguistics + another field | 18 | 2 | 5 | 7 | 4 | 4 | 3 | 3 | 6 | 5 | 5 | 7 |
| Another field + Linguistics | 2 | 0 | 2 | 3 | 4 | 3 | 2 | 3 | 6 | 14 | 18 | 14 |

# Mathematics

**Professor Cliff Taubes, Director of Undergraduate Studies**

Mathematics is the science of order, and mathematicians seek to identify instances of order and to formulate and understand concepts that enable us to perceive order in complicated situations.

Perhaps the most important concept of mathematics is that of function, which provides us with the means to study dependence and change. The study of real functions of a real variable (and later complex functions), particularly in connection with the limit concept, is called analysis. The most effective tool for this study is the infinitesimal calculus that analyzes the relation between functions and their derivatives. The study of number systems and their generalizations is called algebra. Here the primary concepts are group, ring, field, and module. The last great branch of mathematics is geometry, which now goes far beyond the classical study of the space we live in to include spaces of high dimension and topology, the abstract theory of shape.

Pure mathematics is concerned with these concepts and their interrelationships, while applied mathematics considers the relation of mathematical concepts to problems arising in other disciplines. Applied mathematics is not a single subject; rather it is almost as many different subjects as there are other disciplines. (But it would be a mistake to think that applied mathematics is organized in terms of the disciplines to which it is applied.)

The concentration in Mathematics is designed to acquaint the student with the most important general concepts underlying the three branches of modern mathematics. Concentration in mathematics will provide an adequate basis for further study in either pure or applied mathematics. Because so many disciplines now rely on the mathematical sciences, a concentration in mathematics provides a valuable background for many different careers. Concentrators who do not choose to continue in mathematics have often gone on to graduate work in other academic subjects or to professional training in law, business, or medicine.

Concentration in Mathematics requires a minimum of either twelve letter-graded courses or eleven letter-graded courses plus one freshman seminar, subject to the following conditions: Eight of the letter-graded courses must be listed as courses taught by the Mathematics Department while the remaining courses can be either mathematics courses or courses in approved, related subjects. These eight mathematics courses must include at least one course in analysis, one in algebra or group theory, and one in geometry or topology (all at the 100 level or higher). Tutorials (Math 99r) are encouraged, but not required. Ordinarily no more than one Math 99r course may count toward the concentration requirement. Reading courses, Math 91r, and Math 60r (the latter for senior thesis research only; SAT/UNS only), can be arranged, but do not ordinarily count toward concentration requirements. A Freshman Seminar can be used in lieu of one of the twelve letter-graded courses in mathematics or related fields if it is taught by a faculty member of the Mathematics Department and if permission to do so is obtained from the Director of Undergraduate Studies in Mathematics.

Each student is required to submit a five-page expository paper in mathematics. The paper should be an

original, coherent, and correct exposition of a topic in pure or applied mathematics. The paper should be written during the sophomore or junior year under the supervision of a professor or tutor in a tutorial (Math 99r), a Math 91r reading course, or a 100- or 200-level course that the student is contemporaneously enrolled in. The paper must be accepted by both that professor or tutor and the Director of Undergraduate Studies. Ordinarily, students enrolled in a tutorial automatically satisfy the expository requirement as part of the structure of the tutorial. The expository requirement must be met before the end of the Reading Period of the second term of the junior year. Extensions may only be granted by the Director of Undergraduate Studies.

A candidate for high or highest honors must, in addition to the course requirements, submit a senior thesis. The thesis may be on any topic in pure or applied mathematics not directly covered in a student's course work. It need not be an original piece of mathematical research, but should be an original exposition of material culled from several sources. A candidate for straight honors (neither highest nor high) can either submit a senior thesis or take four extra courses in Mathematics or approved related fields in addition to the twelve-course requirement described below under the heading Basic Requirements. (See below under Requirements for Honors Eligibility for more details.)

In addition, the department offers a Mathematics and Teaching option designed for students who are enrolled in the Undergraduate Teacher Education Program (UTEP). Students who choose this option will acquire eligibility for the teaching certification required for public school teaching in many states.

The department encourages students to take the most advanced courses for which they are qualified. Nevertheless, students who enter as freshmen or Advanced Standing sophomores will not ordinarily be permitted to count courses taken elsewhere toward the twelve-course requirement. Transfer students wishing to concentrate in Mathematics should consult the Director of Undergraduate Studies, who will review their transcripts and arrange their concentration requirements.

The department welcomes students who want to change their concentration to Mathematics as long as it is plausible that they can fulfill the requirements within the time remaining. Students considering Mathematics may also wish to consider Applied Mathematics, Computer Science, or Statistics. Joint concentrations with Computer Science, Philosophy, Physics, or other fields can be arranged.

**REQUIREMENTS**
**Basic Requirements: 12 courses (48 credits)**

1. *Required courses:*
    1. Eight letter-graded courses in Mathematics, at least four of which must be at the 100 level and including at least one in each of the areas of analysis (numbered 110–119), algebra (numbered 120–129), and geometry (numbered 130–139). Appropriate graduate-level courses may be substituted for these area requirements. Courses listed in the course catalog in other departments which are cross-listed by the Mathematics Department do not count towards this requirement but may count toward requirement 1b.
    2. Four letter-graded courses in either Mathematics or related subjects. Related courses include:
        1. Applied Mathematics 21a, 21b, 50 (may not be counted in addition to Mathematics 99r or a Freshman Seminar), 101, 104, 105, 106 (may not be counted in addition to Mathematics 122), 107, 111, 115, 120 (may not be counted in addition to Mathematics 121) 121, 147, 201, 202, 205, 207, 210, 211. Neither Applied Mathematics 21a nor 21b may count toward requirements 1a or 1b in addition to any of the following courses: Mathematics 18, 19a, 19b, 21a, 21b, 23a, 23b, 25a, 25b, 55a, 55b.
        2. Astronomy 193, 200
        3. Organismic and Evolutionary Biology 173, 181, 252.
        4. Chemistry 160, 161, 242.
        5. Computer Science 51, 121, 124, 125, 134, 181, 187, 220r, 221, 222,223, 224, 225, 226r, 228, 277.
        6. Economics 2010a, 2010b, 2010c, 2010d, 2052, 2099, 2120.
        7. Engineering Sciences 123, 125, 145, 156, 181, 201, 202, 203, 209, 210, 220, 241, 255.
        8. Government 2005, 2006
        9. Neuroscience 140
        10. Philosophy 140, 144.

11. Physical Sciences 10, 12a, 12b.
12. Physics or Applied Physics, all except 90r, 91r, 95, and courses which are primarily laboratory courses such as 123 and 191.
13. Statistics 107, 110, 111, 139, 140, 149, 170, 171, 210, 211, 215, 220, 221.
14. Systems Biology 200
15. Many other courses are given in the University that make substantial use of mathematics. Such courses may be counted as related for concentration credit if approved by the Director of Undergraduate Studies. Students must secure approval for courses not listed in item 1b before enrolling through my.harvard.

3. One Freshman Seminar (graded SAT/UNS) can be substituted for one of the twelve letter-graded courses listed in parts 1a and 1b above provided that the following three conditions are met:
    1. The Freshman Seminar is taught by a faculty member of the Department of Mathematics.
    2. The Freshman Seminar is not used in lieu of one of the required 110–119, 120–129, or 130–139 courses noted in 1a above.
    3. Permission is obtained from the Director of Undergraduate Studies in Mathematics before the approval of the Plan of Study. A grade of SAT in the seminar is a necessary but not sufficient condition for such permission.
    4. Ordinarily, a Freshman Seminar may not be counted in addition to another seminar or tutorial course, such as Mathematics 99r.
4. Each student is required to submit a five-page expository paper in mathematics. The paper should be an original, coherent, and correct exposition of a topic in pure or applied mathematics. The paper should be written during the sophomore or junior year under the supervision of a professor or tutor in a tutorial (Math 99r), a Math 91r reading course, or a 100- or 200-level course that the student is contemporaneously enrolled in. The paper must be accepted by both that professor or tutor, and the Director of Undergraduate Studies. Ordinarily, students enrolled in a tutorial automatically satisfy the expository requirement as part of the structure of the tutorial.
    1. *Note*: The expository requirement must be met before the end of the Reading Period of the second term of the junior year. Extensions may only be granted by the Director of Undergraduate Studies.

2. *Tutorial*: None are required, but Math 99r is suggested. Although Math 99r may be repeated, only one tutorial will count for concentration.
3. *Thesis*: None.
4. *General Examination*: None.
5. *Other information:*
    1. Exceptional programs are frequently approved, especially for students doing advanced work. Consult the Director of Undergraduate Studies.
    2. A student whose record does not include a course in calculus may be asked to demonstrate familiarity with this subject by a special examination.
    3. Mathematics 91r will not ordinarily be counted for concentration credit.
    4. Mathematics 60r will not be counted for concentration credit.
    5. Mathematics Ma and Mb together count as one course of concentration credit.

**Requirements for Honors Eligibility: 12 courses (48 credits) plus thesis**

1. *Required courses*: Same as **Basic Requirements.**
2. *Additional Requirements*: Either of the following:
    1. For straight honors only (no high or highest honors): 4 additional courses (16 credits) in either Mathematics or the Related fields listed under Basic Requirements. Course grades in these courses and the 12 basic requirement courses must average B+ or higher.
    2. For straight honors, or high or highest honors: A senior thesis is required. There is also a thesis examination on the area of mathematics germane to the area of the thesis. No additional courses are required, but course grades in the 12 Basic Requirement courses must average B+ or higher.

**Requirements for Joint Concentrations**

The requirements in Mathematics for a joint concentration differ according to whether Mathematics is the primary or allied field. If Mathematics is first, then the requirements are the same as the Requirements for Honors Eligibility as described above. If Mathematics is second, then the requirements are 5 courses

in Mathematics, at least three of which must be at the 100 level and include at least one in each of the areas of analysis (numbered 110- 119), algebra (numbered 120-129), and geometry (numbered 130-139). For a joint concentration in which Mathematics is second, no expository paper is required.

**Mathematics and Teaching Option**
This option is offered by the Department of Mathematics to encourage students with a degree in mathematics to enter secondary school teaching. It is designed for undergraduates who are enrolled in the Undergraduate Teacher Education Program (UTEP). Students who complete UTEP will thereby obtain eligibility for the teaching certificate required for public school teaching by about thirty states, including Massachusetts. See Chapter 2 for more information on UTEP.
*Note: Those who plan to teach only in independent schools will not need a teaching certificate, and hence do not need to take this program. However, they too may wish to take UTEP courses to enhance their career preparation.*

**Requirements for Mathematics and Teaching Option: 12 courses (48 credits)**

1. *Required Courses:*
    1. Seven letter-graded courses in Mathematics, including at least one in each of the areas of analysis (numbered 110-119), algebra (numbered 120-129), and geometry (numbered 130-139). Mathematics 101 can be used to fulfill any one (but only one) of these area requirements. Courses listed in the course catalog in other departments which are cross-listed by the Mathematics Department do not count toward this requirement.
    2. Graduate School of Education (HGSE) T-300a or equivalent practicum in the teaching of Mathematics.
    3. Three letter-graded courses in computer science, statistics, or physics, with at least two courses in the same field. The courses that can be used to satisfy this requirement include the courses listed in **Basic Requirements** item 1B (c, j, and k), and, in addition, Computer Science 50 and Statistics 102, 104 and 109.
    4. One Freshman Seminar or one letter-graded course in Mathematics or a related field in addition to those chosen in 1A and 1C, above. Related courses include all the courses listed in **Basic Requirements** 1b, and also Computer Science 50 and Statistics 109. A course in the history of science may be included with the prior permission of the Director of Undergraduate Studies. The Freshman Seminar can be used for this requirement provided the conditions listed in **Basic Requirements** are met.
    *Note:* Other courses in statistics or applied mathematics offered in the Harvard Graduate School of Education or in the Graduate School or Arts and Sciences may count as related courses with the approval of the Director of Undergraduate Studies.
2. *Tutorial:* Same as **Basic Requirements**.
3. *Thesis:* None.
4. *General Examination:* None.
5. *UTEP:* The course and teaching requirements of the Undergraduate Teaching Education Program must be completed before graduating under the Mathematics and Teaching option. See Chapter 2 for more information.

*Other information*: Interested students are encouraged to inquire about the program at any time. Questions should be directed to the UTEP Associate Director, who is responsible for advising program participants. For further information please contact the Teacher Education Office at the Graduate School of Education, Longfellow Hall, (617-495-2783) beth_simpson@gse.harvard.edu, or visit the UTEP website (https://utep.gse.harvard.edu/).

**ADVISING**
Concentrators are assigned a faculty member to act as their concentration adviser when their Plan of Study is approved by the Director of Undergraduate Studies. Advisers assist concentrators in selecting courses and also approve enrollment through my.harvard. In addition, each junior will be asked to meet privately at some point during the academic year with two faculty members to discuss academic progress and career goals.
For up-to-date information on advising in Mathematics, please see the Advising Programs Office Website.

**RESOURCES**
The department common room (fourth floor, Science Center) is open to all Mathematics. The department

library (third floor, Science Center) is open to all concentrators during regular hours (Monday through Friday, 9–5). The library may be used at other hours by seniors writing theses and by other math concentrators with permission from the department.

**HOW TO FIND OUT MORE**
Six pamphlets are available at the Mathematics Department: Concentration in Mathematics describes the resources of the department; Courses in Mathematics may be useful in the selection of a study plan; Beyond Math I focuses on the differences among the 20-level math courses; Honors in Mathematics gives details of the procedure for writing a senior thesis; Graduate Schools and Fellowships in Mathematics may be useful in formulating graduation plans; Mathematical Sciences at Harvard, published by the School of Engineering and Applied Sciences, describes the resources, courses, and concentrations available to undergraduates interested in pure or applied mathematics. These pamphlets can be obtained from the Undergraduate Studies Coordinator, Cindy Jimenez, Science Center Room 334, 617-495-9116, cindy@math.harvard.edu. Other information about the concentration and the department can be found on the Internet at www.math.harvard.edu.

All questions about the Mathematics concentration should be directed to the Director of Undergraduate Studies, Professor Cliff Taubes, contact info chtaubes@math.harvard.edu. Information about tutorials, jobs, fellowships, and other matters is posted on the undergraduate bulletin board opposite Science Center Room 320. All math concentrators are urged to subscribe to the department's undergraduate electronic news network by sending their email addresses to Cindy Jimenez, (cindy@math.harvard.edu).

**ENROLLMENT STATISTICS**
**Number of Concentrators as of December**

| Concentrators | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Mathematics | 87 | 80 | 75 | 76 | 74 | 71 | 70 | 77 | 78 | 79 | 97 | 108 |
| Mathematics + another field | 7 | 11 | 16 | 21 | 16 | 26 | 22 | 31 | 30 | 30 | 37 | 38 |
| Another field + Mathematics | 37 | 43 | 49 | 55 | 48 | 45 | 60 | 69 | 65 | 77 | 81 | 105 |

# Mechanical Engineering

**Professor Katia Bertoldi, Director of Undergraduate Studies**
**Dr. Chris Lombardo, Associate Director of Undergraduate Studies**

Mechanical engineering is a discipline of engineering that uses the principles of physics and materials science for the analysis and design of mechanical and thermal systems. Mechanical engineering is critical to the success of many human enterprises - it plays a central role in the generation and distribution of energy, transportation, manufacturing, and infrastructure development. Nearly every product or service in modern life has been touched in some way by a mechanical engineer.

The concentration in Mechanical Engineering is structured for a diversity of educational and professional objectives. For students who are planning to work as practicing engineers or who may be preparing for careers in business, education, government, or law—and for those whose career objectives may be less specific—the concentration provides an ideal framework for a well-rounded technical and scientific education.

The technologies that engineers create are changing at an amazing rate, but the fundamental tools of engineering change more slowly. The Harvard Mechanical Engineering curriculum emphasizes a solid background in the applied sciences and mathematical analysis and provides ample opportunity to learn about state-of-the-art technologies. Students also gain experience in the engineering design process, the unique engineering activity that requires creative synthesis as well as analysis to fulfill specified needs.

The objectives of the Mechanical Engineering program are to provide students a solid foundation in mechanical engineering within the setting of a liberal arts college for preparation for a diverse range of careers in industry and government or for advanced work in engineering, business, law, or medicine. It enables the acquisition of a broad range of skills and attitudes drawn from the humanities, social sciences, and sciences in addition to engineering, which enhances engineering knowledge and contributes to future leadership and technical success.

The SB degree program requires a minimum of twenty courses (80 credits). The curriculum is structured with advanced courses building on the knowledge acquired in math, science, and introductory engineering science courses. Concentrators are encouraged to complete the common prerequisite course sequence in their first two years at Harvard. This includes Math (through 1a and 1b; plus, 21a and 21b, 22a and 22b, 23a and 23b, or Applied Mathematics 21a and 21b, or 22a and 22b), Physics (through Physical Sciences 12a and 12b, Physics 15a and 15b, or Applied Physics 50a and 50b), and Computer Science 50. Students are cautioned that it is more important to derive a solid understanding of these basic subjects than to complete them quickly without thorough knowledge; this material is extensively used in many subsequent courses. If in doubt, it may be wise to enroll in the Math 1 sequence rather than proceed to Math 21a or 23a with marginal preparation.

The SB programs in Mechanical Engineering and Engineering Sciences share many course requirements, and there is some flexibility in moving between these programs. To get an early sample of engineering coursework, entering students are invited to enroll in Environmental Science and Engineering 6 (Environmental Science and Engineering), Engineering Sciences 50 (Electrical Engineering), Engineering Sciences 51 (Mechanical Engineering), and Engineering Sciences 53 (Biomedical Engineering). These introductory courses have minimal prerequisites and have been very popular with prospective engineering concentrators. Engineering Sciences 50 and 51 have extensive hands-on laboratory sections.

*Upon graduation, students in the Mechanical Engineering concentration should demonstrate the following student outcomes:*

- An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics
- An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors
- An ability to communicate effectively with a range of audiences
- An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgements, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts
- An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environmental, establish goals, plan tasks, and meet objectives
- An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgement to draw conclusions
- An ability to acquire and apply new knowledge as needed, using appropriate learning strategies

**OPTIONS**
Students select a track in:

- Mechanical Systems
- Thermal Systems

**REQUIREMENTS**
**20 courses (80 credits)**

1. ***Required courses for all Tracks:***
    1. *Mathematics/Probability and Statistics/Applied Mathematics (four courses):*
        1. Mathematics 1a and b; and Applied Mathematics 21a and 21b, Applied Mathematics 22a and 22b, Mathematics 21a and 21b, Mathematics 22a and 22b, or Mathematics 23a and 23b. (Note: Students who start in Mathematics 1a will not be required to satisfy

either the probability and statistics requirement or the applied math requirement. Students who start in Mathematics 1b must take a course that satisfies the probability and statistics requirement. Students who start in Mathematics 21a, 22a, 23a, or Applied Mathematics 21a or 22a must complete the courses in both probability and statistics and applied math.)
2. Probability and Statistics (one course): At least one of Applied Mathematics 101, Engineering Sciences 150, or Statistics 110 (if starting in Mathematics 1b, 21a, 22a or 23a, or Applied Mathematics 21a or 22a).
3. Applied Mathematics (one course): At least one of Applied Mathematics 104, 105, 106, 107, 108 (formerly Applied Mathematics 147), or 120 (if starting in Mathematics 21a, 22a, or 23a or Applied Mathematics 21a or 22a).

2. *Physics (two courses)*: Applied Physics 50a, Physical Sciences 12a, or Physics 15a or 16; and Applied Physics 50b, Physical Sciences 12b, or Physics 15b. Appropriate advanced-level physics courses may also fulfill this requirement (please consult with SEAS advisers).
3. *Chemistry/Advanced Science (two courses)*: Life Sciences 1a or Life and Physical Sciences A, Physical Sciences 1 or 11, or Physical Sciences 10. Advanced science courses by permission.
4. *Computer Science (one course)*: Computer Science 50, 51, or 61.
5. *Electronics (one course)*: Engineering Sciences 54, 153, or both of Engineering Sciences 152 and Computer Science 141. (If both ES 152 and CS 141 are taken, the second course can count as the engineering elective, see h below.)
6. *Engineering Design (two courses)*: Engineering Sciences 96 or 227, and Engineering Sciences 100hf (see item 3 below). Engineering Sciences 96 or 227 must be taken in junior year, prior to ES 100hf.
7. *Engineering Elective (one course)*:
    1. Engineering Sciences 50, 53, 111, 115, 121, 128, 151, 152, 156, 162, 173, 175, 177
    2. *Note*: By prior petition and approval, advanced-level engineering science courses relevant to mechanics and materials engineering and advanced-level MIT courses in mechanical or materials engineering. Petitions will only be considered for courses that possess engineering content at a level similar to other technical engineering courses at SEAS.
    3. Computer Science 51, 61, 141
    4. Applied Physics 195
    5. *Note*: Students entering Harvard with secondary school preparation that places them beyond the level of any of the required courses listed above may substitute appropriate advanced-level courses. However, ABET accreditation requires that all students complete at least 8 courses in math and science and 12 courses in engineering topics. Students who start in Math Ma will need to take 21 courses in order to fulfill the degree requirements. Given the number and complexity of the requirements, students interested in pursuing Mechanical Engineering should consult with the Associate Director of Undergraduate Studies or Director of Undergraduate Studies about their plans of study as early as possible.

2. ***Track Requirements:***
    1. *Mechanical Systems Track*
        1. Required Core (four courses):
            1. Engineering Sciences 51, 120, and 125
            2. Engineering Sciences 123 or 181 (other can be taken as track elective)
        2. Track electives (three courses):
            1. Select at least one course on thermal systems: Engineering Sciences 181, 183
            2. Select from the following to reach a total of three track electives: Engineering Sciences 123, 128, 159, 192
    2. *Thermal Systems Track*
        1. Required Core (four courses):
            1. Engineering Sciences 181 and 183
            2. Engineering Sciences 120 or 123 (other can be track elective)
            3. Engineering Sciences 51 or 125 (other can be track elective)
        2. Track electives (three courses):
            1. Select three from: Engineering Sciences 51, 120, 123, 125, 173, 190, 192
3. ***Sophomore Forum***: Sophomore year. Non-credit. Spring term.
4. ***Tutorial***: Required. Engineering Sciences 100hf.
5. ***Thesis***: Required: An individual engineering design project is an essential element of every SB

program and is undertaken during the senior year as part of Engineering Sciences 100hf. Faculty supervised reading and research is an important aspect of this requirement.

6. ***General Examination***: None.
7. ***Other Information:***
    1. *Advising Note*: Students who score below a letter grade of B in their math courses, particularly in the 1a,b and 21a,b series, are strongly encouraged to speak with the Mechanical Engineering Director or Associate Director of Undergraduate Studies to discuss their math preparation for Mechanical Engineering.
    2. Engineering Sciences 50 and 53 and Environmental Science and Engineering 6 can only count as an engineering elective when taken during the freshman or sophomore years.
    3. Only one of ES 91r (4 credits) or ES 91hfr (4 credits) can count as an approved elective in the degree requirements
    4. *Pass/Fail and Sat/Unsat*: None of the courses used to satisfy the concentration requirements may be taken Pass/Fail or Sat/Unsat.
    5. *Plan of Study*: Concentrators are required to file an approved departmental Plan of Study during their third term (i.e., the first term of their sophomore year) and to keep their plan up to date in subsequent years. All SB programs must meet the overall ABET program guidelines, a minimum of four courses in basic sciences, four courses in mathematics and twelve courses in engineering topics. Plan of Study forms may be obtained from the School of Engineering and Applied Sciences' Office of Academic Programs, Pierce Hall 110, and from the SEAS website.
    6. *Additional Terms*: Concentrators who wish to remain beyond the end of the second term of their senior year to complete the SB requirements must be approved to do so by the Undergraduate Engineering Committee. A written petition is required and should always be submitted as early as possible and under discussion with the Associate Director of Undergraduate Studies or Director of Undergraduate Studies. Petitions can be submitted no later than January 15 between the student's fifth and sixth terms (i.e., middle of junior year), or August 15 between the student's fifth and sixth terms if the student's fifth term is the spring. Under no circumstances will the Committee grant a student permission for more than two additional terms. Petitions are only granted in exceptional cases, and only to meet specific SB degree requirements. More information can be found on the SEAS website.
    7. *Joint Concentrations*: Mechanical Engineering does not participate in joint concentrations.
    8. Any exceptions to these policies must be approved via written petition.

**ADVISING**

Students interested in concentrating in Mechanical Engineering should discuss their plans with the Director of Undergraduate Studies, the Associate Director of Undergraduate Studies, or the Undergraduate Academic Programs Manager. Each undergraduate who elects to concentrate in Mechanical Engineering is assigned a faculty adviser depending on his or her area of specialization. The faculty adviser might also be a member of the Undergraduate Engineering Committee, whose members have the responsibility for reviewing departmental Plans of Study. If students do not request a change in adviser, they have the same adviser until they graduate. Each student is reassigned to another faculty member while his or her original faculty adviser is on leave. It is expected that students will discuss their Plans of Study and progress with their Director of Undergraduate Studies or Associate Director of Undergraduate Studies at the beginning of each term. Students may seek advice from their faculty adviser, the Director of Undergraduate Studies, the Associate Director of Undergraduate Studies, or the Academic Programs Manager at any time.

**HOW TO FIND OUT MORE**

Further information is available from the Director of Undergraduate Studies, Professor Katia Bertoldi, bertoldi@seas.harvard.edu, 617-496-3084; or the Associate Director of Undergraduate Studies, Dr. Christopher Lombardo, lombardo@seas.harvard.edu, (617) 496-5185; or the Undergraduate Academic Programs Manager, Kathy Lovell, klovell@seas.harvard.edu, (617) 496-1524.

**ENROLLMENT STATISTICS**

**Number of Concentrators as of December**

| Concentrators | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|
| Mechanical Engineering | 18 | 47 | 56 | 53 | 64 | 72 | 70 | 67 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Mechanical Engineering + another field | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Another field + Mechanical Engineering | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

*Mechanical Engineering was a new concentration for 2012-13.

# Molecular and Cellular Biology

**Professor Vlad Denic, Head Tutor**

The Molecular and Cellular Biology concentration emphasizes the intersection of modern research in cellular biology with medicine and society. It is rooted in the investigation of biological processes based on the study of molecules and their interactions in the context of cells and tissues, and in understanding how the vast information context of the genome orchestrates the behavior of the cell. MCB is therefore ideally suited for students who wish to study molecular and cellular processes at the heart of both normal physiology and disease. It focuses on fundamental principles of modern biology at the hub of nearly all life science sub-disciplines, and integrates many different methodologies ranging from chemistry and genetics to computer science and engineering, as well as fundamental concepts in physics and mathematics.

MCB concentrators will acquire an understanding of scientific logic and approaches as they explore a wide range of contemporary subjects, spanning biochemistry, cell biology, genomics, systems biology, developmental biology, immunology, cancer biology, molecular medicine, the microbiome, global health and infectious disease. Students will also have the opportunity to tackle subjects of a more applied nature, such as drug design, personalized medicine and biotechnology.

Through coursework and hands-on research, students in the concentration will have the opportunity to explore many of the central questions in modern biology and medicine. The MCB faculty is dedicated to supporting undergraduate research, and we encourage students to join the laboratory of an MCB faculty member or a laboratory in one of the affiliated Centers, at Harvard Medical School, the Harvard School of Public Health, and affiliated institutes. We consider the senior thesis to be the capstone academic experience, and the concentration will provide extensive support to seniors to make thesis writing an enriching experience.

MCB graduates will be informed citizens who can understand and evaluate the impact of new research discoveries in the life sciences, discoveries that are unfolding at a breathtaking and accelerating pace. Both courses and programs that promote interactions with faculty members link basic, mechanistic insights with human disease and show how the study of disease leads to fundamental biological discoveries. Graduates of the MCB concentration will stand poised to pursue a wide range of careers, including biological and medical research, public and global health, science policy, law and intellectual property, business, education, and science writing.

The Board of Tutors in Biochemical Sciences, which was established in 1926, runs the Tutorial program for the Molecular and Cellular Biology concentration and the Chemical and Physical Biology concentration. The tutorial program offers individualized instruction to all concentrators beginning at the time of declaration. Concentrators typically meet with their tutors every two weeks and discuss primary research literature in a small group or one-on-one setting. Mentoring on career choices, the research experience, and other academic matters is a logical extension of the tutorial. The tutorial is not taken for credit and therefore does not appear on the my.harvard crimson cart or transcript. The Head Tutor and Concentration Adviser make all tutorial assignments and are available throughout the academic year to answer questions from students or their tutors. A handout that describes the history, goals, and format of the tutorial program is available on the web.

**REQUIREMENTS**
**Basic Requirements: 12-13 courses (48 -52 credits)**

1. *Required courses:*
    1. *Life Sciences*: Two courses. Life Sciences 1a (or Life and Physical Sciences A) and Life Sciences 1b.
    2. *Biology*: Two courses. MCB 60 and one additional course selected from MCB 63, MCB 64, MCB 65, MCB 68 or MCB80.

3. *Chemistry*: Two courses. One of these courses should be general chemistry, such as Physical Sciences 1, and the remaining course should be organic chemistry and may be chosen from Chemistry 17 or Chemistry 20. See items 3b and 3c below.
4. *Mathematics and computational skills*: One or two courses. In addition to mathematics, statistics and computational skills are increasingly important in our discipline. According to a student's preparation level, this requirement can be fulfilled in two ways. One path is to take Mathematics 1b and one of the following:
    1. Mathematics 19a or higher
    2. Statistics 102 (or 110 or 111 or an approved alternative)
    3. Computer science such as CS 50 or an approved alternative
    4. *Note*: An alternative path is to demonstrate competency beyond the Mathematics 1b level by taking:
        1. Mathematics 19a or higher, or
        2. An approved calculus-based statistics course (such as Statistics 110 or 111)
    5. *Note*: Students are encouraged to discuss which path is most appropriate for their preparation level and interests with the concentration advising team. Please note that students who are able and choose to meet the mathematics/computational skills requirement using only one course may need to take one additional course to meet the minimum course requirement for the concentration.
5. *Physics*: Two courses. One course in mechanics (Physical Sciences 2 or equivalent) and one course in electricity and magnetism (Physical Sciences 3 or equivalent).
6. *Advanced courses*: Two courses above the introductory level, including at least one MCB 100-level course. All 100-MCB courses and certain advanced courses in related fields may be used to fulfill this requirement. A list of non-MCB courses that fulfill the advanced course requirement is available online.
7. *Research experience*: The requirement for a research experience can be fulfilled by at least one semester of research (LS 100r, MCB 91r or MCB 99) or a summer research experience in an approved program. To fulfill the research requirement, a summer research experience ordinarily: (i) consists of at least 8 weeks of full-time research; (ii) is sponsored by a Harvard-affiliated faculty member; (iii) is broadly related to the field; and (iv) culminates in a capstone experience (substantive written report, poster or oral presentation outside of the host lab). A list of approved programs that fulfill these requirements is available from the concentration office. Students doing thesis work ordinarily enroll in two terms of MCB 99 in their final year at the College, one of which is sufficient to fulfill this requirement.

2. *Tutorial*: The tutorial program is an important component of the concentration. It provides a mechanism for students to engage in mentorship relationships with the MCB faculty and members of the Board of Tutors in Biochemical Sciences. The goals are to (1) provide opportunities for discussions about science and its role in the larger community, (2) provide students with the foundation to apply their education and the scientific method to life outside of the classroom and Harvard and (3) advise and inform students on curricular and pre-professional choices. The tutorial is a non-credit program that spans the whole length of time the student is part of the concentration.
3. *Other information*:
    1. *Pass/Fail:* All courses for concentration credit must be letter-graded.
    2. The total number of concentration courses taken during the student's college career (including approved study abroad or transfer credits) must be at least 12 (14 for honors eligibility). Students who place out of particular concentration requirements based on their preparation level should choose additional courses appropriate to their intellectual interests and skill level in consultation with the concentration advising team. Similarly, students who fulfill their research requirement in the summer may need to take an additional course to meet the minimum course requirement.
    3. *General Chemistry*: We highly encourage students who start with Chemistry 17 or Chemistry 20 (rather than Physical Sciences 1) to take a course containing elements of inorganic and/or physical chemistry (such as Chemistry 40 or 60, MCB 65 or 199, Physical Sciences 10 or 11, or equivalent), especially if they are considering a career in research or medicine.
    4. Courses offered by the School of Engineering and Applied Sciences and by the Division of Medical Sciences may be counted for concentration credit wherever appropriate. Please consult the concentration office for more information.

**Requirements for Honors Eligibility: 14-15 courses (56-60 credits)**

1. *Required courses:*
    1. Same as **Basic Requirements** items 1-3 above.
    2. A second semester of organic chemistry (Chemistry 27 or Chemistry 30 or equivalent).
    3. One additional advanced course (see item 1f above).
2. *Thesis*: Optional for award of Honors or High Honors in Field, but required for Highest Honors in Field. To be considered for highest honors, a thesis based on independent laboratory research is required. Students intending to write a thesis should plan to enroll in two terms of MCB 99 in their final year at the College. One term of MCB 99 counts toward the requirements for a research experience (see item 1g, above) and the other term counts as one of the three upper-level courses required for honors eligibility (see item 1f, above).

**JOINT CONCENTRATIONS**

Students wishing to pursue a joint concentration with MCB must fulfill the MCB Honors course requirements and complete a senior thesis that is at the intersection of the two fields of study. While a variety of joint concentrations are possible, quantitative fields such as statistics and computer science may be particularly appropriate. Owing to the significant overlap in requirements, a joint concentration in MCB with any of the other life science concentrations (Neuro, CPB, HDRB, IB, HEB, BME, Chemistry, Psychology (Life science track)) are not allowed.

*Joint concentrations are evaluated and approved on a case-by-case basis. The process for evaluation, approval and advising for joint concentrations is as follows:*

1. The potential joint concentrator submits a form. Early submission facilitates advising and concentration requirement oversight by both potential concentrations, but the form must be submitted at the latest by March 15th of their Junior year. Form submission is followed by a mandatory, in-person meeting with the Assistant Director of Undergraduate Studies. The purpose of the form and meeting is to map out the study plan for a joint concentration (n.b. MCB course requirements is unaffected whether MCB is the primary or the allied concentration). The deadline is intended to give students sufficient time to develop and submit their thesis proposals during the month of July preceding their senior year. The Head Tutor, in collaboration with the ADUS, will review the application for a joint concentration and respond with a decision accompanied by feedback within a month from the time of submission. Students whose applications are denied can address the comments in the feedback and resubmit by the final deadline of March 15.
2. A joint concentration degree will not be awarded if any thesis or coursework requirement was not met.
3. The student is responsible for mediating communications with the two concentrations to obtain approval of the thesis proposal and establish a plan for evaluation of the joint thesis by both concentrations.
4. Joint concentrators are required to discuss their progress at the start of each semester by meeting with advisers from both concentrations.

**ADVISING**

The MCB Concentration Adviser, Dr. Dominic Mao is available to concentrators and pre-concentrators to provide guidance on course selection, laboratory research, and the fulfillment of concentration requirements.

**RESOURCES**

A tutorial reference library is housed in the MCB Undergraduate Office at 7 Divinity Avenue (95 Sherman Fairchild building), which contains books and hard copies of past senior theses (thesis titles from 2011-present can be viewed here). Four rooms in the upper level of the undergraduate office are used by concentrators for tutorial meetings and as study spaces.

**HOW TO FIND OUT MORE**

The Head Tutor for the Molecular and Cellular Biology concentration is Professor Vlad Denic, and the Concentration Adviser is Dr. Dominic Mao (dominicmao@fas.harvard.edu or 617-495-4106).
Visit https://www.mcb.harvard.edu/undergraduate/molecular-and-cellular-biology-mcb/ or contact Dr. Dominic Mao (dominicmao@fas.harvard.edu or 617-495-4106) for more information.

**ENROLLMENT STATISTICS**

**Number of Concentrators as of December**

| Concentrators | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Molecular and Cellular Biology | 162 | 184 | 151 | 114 | 79 | 82 | 101 | 123 | 158 | 150 | 132 | 110 |

# Music

**Professor Richard K. Wolf, Director of Undergraduate Studies**

The concentration in Music exposes students to a wide variety of musical styles, sounds, and musical traditions in order to develop their critical understanding of music in diverse cultural and historical contexts. The concentration also provides a solid foundation in theory, analysis, composition, and criticism, as well as the opportunity to develop acute listening skills. The trained ear grounds the unique contribution of musical study to the humanities. Although the Department of Music is not in itself a school of music with a performance department, all of our courses support the intellectual development of musicians, and many of our courses incorporate or focus on performance.

Students are encouraged to participate (with credit) in faculty-led ensembles in orchestra, chorus, jazz, and dance. We offer a wide range of introductory and advanced courses in music theory, composition, historical musicology, ethnomusicology, in addition to many courses that incorporate or focus on musical performance. These courses reflect the specialties of our academic faculty: diaspora studies and migration, opera, jazz, music and politics, early music, musical theater, music and media, improvisation, hip hop, history of the book, film, Islam, American and European modernism, music and cognition, music and ecology, music and language, new music of the 21st-century, and cross-cultural composition; regular cross-cultural offerings include the musical traditions of Africa, Latin America, South Asia, Central Asia and West Asia.

Students choose their own pathways through these course offerings, creating a mix of introductory and advanced courses that best reflect their musical interests and aspirations. Students may enter the concentration from any music course, including performance courses, Freshman Seminars, Gen. Ed. and introductory courses, as well as through the first-year theory course. The heart of the concentration is the two-semester concentration tutorial, “Critical Listening” and “Thinking About Music.” These required courses, taught by different faculty on a rotating basis, provide listening and analytical skills as well as a familiarity with a wide range of methodologies in music studies.

Students continue with electives that invite engagement with musical questions at a deeper level. In musicology and ethnomusicology, these courses take the form of proseminars for small groups that explore in detail selected musicological issues and direct students toward significant independent projects. Several courses in acoustic and electronic composition are given each year, along with occasional offerings in orchestration and other specific compositional topics. Advanced theory and analysis courses include such topics as tonal and post-tonal analysis, jazz harmony, and modal and tonal counterpoint. Performance-oriented courses include chamber music, jazz, South Indian, West African, historical performance practice, improvisation, conducting and creative music.

There are three concentration tutorials: 97T Thinking about Music, 97L Critical Listening, and 98 Advanced Tutorial. The two concentration tutorials, Music 97T and Music 97L, can be imagined as offering a macrocosm and microcosm of the musical world. Where Music 97T tackles broad questions pertaining to music and its place in human existence, Music 97L entails a more detailed level of engagement with music. Music 98 (optional for joint concentrators), emphasizes skills that students may be able to use with the view to a senior thesis or capstone project.

For those writing senior theses, a year of Senior Tutorial (Music 99r) is required. Options for senior theses include research papers, original compositions, or senior recitals. Students working toward a senior thesis will normally enroll in Music 98 in the spring of junior year. There are no general examinations for undergraduates.

A capstone project can be either an extension of a final class project, or a fresh project, undertaken in the context of Music 98. It is ungraded and serves as a culminating experience in the music department for those not pursuing a senior thesis. Where Music 98 leads to a capstone project, it may be taken during the senior spring semester.

The department welcomes joint concentrations with other departments that allow them. Students who had wished to pursue a joint concentration with a department that does not allow them should consult with the DUS to explore how best to pursue their course interests in music. Joint concentrators need to fulfill a reduced number of course requirements, as outlined below. A senior thesis is required, usually on a topic that engages both fields.

For students who feel they require more time for applied practice and study, the department offers a five-year performance program. Students approved by the department and the Administrative Board for this program take the normal number of courses in their freshman year, but then work at the three-course rate for the four years following. This permits more intensive work in performance. These students are expected to give a senior recital.

Students who have taken college courses in music at other institutions may receive concentration credit for work done elsewhere. This ordinarily involves a written petition to the faculty and may require taking an examination in the materials of the course for which credit is requested.

**REQUIREMENTS**
**10 courses (40 credits)**

1. *Required courses:*
    1. Music 97T and Music 97L; Music 98 (see item 3. Tutorials).
2. *Electives*:
    1. Any 7 courses taught by Music Department faculty with no more than 2 each from the **following categories**
        1. - Faculty-led ensembles and Introductory courses
        2. - A particular course number followed by the letter ‘r’, indicating that it is repeatable (you can take as many repeatable courses with different numbers as you wish, but only two of a particular number, and only one time; so for example if you take 160r twice and 161r twice, either two 160rs and one 161r count, or two 161rs and one 160r count for concentration credit)
        3. - SAT/UNSAT courses
        4. - Approved courses outside the department that are not taught by Music Department Faculty.
3. *Honors*
    1. *Thesis* (Music 99, 2 semesters, graded SAT/UNSAT)
4. ***Department of Music Course offerings are categorized as follows:***
    1. *Composition*: Music 160r through 167r
    2. *Conducting or orchestration*: Music 121a through 128r
    3. *Faculty-led Ensembles*: Music 10 through 18
    4. *Introductory Music*: Gen Ed and Freshman Seminars taught by Music Department faculty, Music 1 through 9, and 20 through 49
    5. *Music Theory*: Music 51a, 51b, 142r, and 150 through 159
    6. *Musicology, Ethnomusicology, Popular Music, and Music & Science*: 176r and 190r through 194r
    7. *Performance-oriented*: Music 105r, 173r, 174r, 175r, 180r, 181r, 185r, 186r, and 189r.
    8. *Supervised Reading and Research*: Music 91r (must submit a proposal form prior to registration, concentration credit requires advance petition).
5. *Tutorials*:
    1. *Sophomore year*: Music 97T and Music 97L
    2. *Junior year*: Music 98 Advanced Tutorial--Graded SAT/UNSAT
    3. *Senior Year (honors only)* Music 99—Graded SAT/UNSAT
6. *Concentration Examination*: None
7. *Other information*: None
8. ***Thesis***: Required of all honors candidates. May be an original composition, a recital or similar performance-based event, or a written thesis. Plan or subject to be approved by the department at the end of the junior year. All students proposing to do a creative thesis must identify an adviser and submit examples of their work for pre-screening in the first term of the junior year. Students wishing to do a composition thesis must have taken an advanced composition course in the department and submit a portfolio of work for consideration by the composition faculty; students wishing to pursue a recital must submit a representative recording for consideration by

the performance committee, along with a resumé and a letter from their performance teacher. Any change of plan must be resubmitted to the department.

1. - Examination: None.
2. - requires enrollment in Music 99r SAT/UNSAT, which does not count toward the 10 courses

**Joint Concentration Requirements: 8 courses (32 credits)**

1. *Required courses:*
    1. Music 97T and Music 97L.
    2. *Electives*:
        1. Any 6 courses drawn from the list of electives in **Basic Requirements**.
2. *Tutorials*:
    1. *Sophomore year*: Music 97T and Music 97L (see item 1. Required courses)
    2. *Junior year*: Music 98 Advanced Tutorial is optional and may be counted toward the 6 electives.
    3. Students should enroll in two terms of Senior Tutorial 99r in their primary department. They will need to find a faculty adviser in Music in any case. Music 99 will not count toward Music concentration credit.
3. *Thesis*: Required. Plan or subject to be approved by both departments by the end of the junior year.
4. *Examination*: None.
5. *Other information*: Music 98 cannot be taken for credit in the two joint departments during the same semester. In exceptional circumstances, the student can take 98 for college credit only while receiving concentration credit in the joint department. Otherwise, same as Requirements for full concentration.

**ADVISING**

All students are required to confer with the Director of Undergraduate Studies or the Assistant Director of Undergraduate Studies at the outset of their concentration or joint concentration, in order to develop an overall plan for fulfillment of requirements. All concentrators will continue to be advised by one of these two faculty members at the start of each term.
For up-to-date information on advising in Music, please see the Advising Programs Office website.

**RESOURCES**

The Eda Kuhn Loeb Music Library offers an outstanding collection of books and scores, as well as listening equipment for its extensive recording collection. The Sound Lab provides access to cutting- edge tools for audio capture and recording, digital media and video editing, as well as audio mixing, mastering, and restoration. Musicians have access to the practice rooms, all of which have pianos, and to a limited number of instrument lockers. The many musical organizations on campus include the Harvard-Radcliffe Orchestra, the Bach Society Orchestra, the Mozart Society Orchestra, the Harvard Glee Club, the Collegium Musicum, the Radcliffe Choral Society, the University Choir, the Group for New Music at Harvard, and the Organ Society. Students interested in composition may submit works for performance at concerts offered by the department and for the Harvard University Prizes. The Office for the Arts offers a special lesson subsidy program to concentrator and non-concentrators, as well as information on private teachers in the area.

**HOW TO FIND OUT MORE**

For further information, please contact the Director of Undergraduate Studies, Professor Richard K. Wolf (rwolf@fas.harvard.edu), Assistant Director of Undergraduate Studies, Professor Alexander Rehding (arehding@fas.harvard.edu), or the Undergraduate Coordinator in the Music Building (617-384-9507). You may also wish to consult the department website.

**ENROLLMENT STATISTICS**

**Number of Concentrators as of December**

| Concentrators | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Music | 30 | 26 | 21 | 18 | 10 | 15 | 16 | 17 | 12 | 7 | 11 | 14 |
| Music + another field | 9 | 8 | 3 | 3 | 5 | 6 | 9 | 11 | 9 | 8 | 7 | 5 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Another field + Music | 6 | 8 | 4 | 4 | 4 | 8 | 6 | 7 | 10 | 10 | 16 | 19 |

# Near Eastern Languages and Civilizations

**Gojko Barjamovic, Director of Undergraduate Studies**

The Department of Near Eastern Languages and Civilizations introduces students to the ancient and modern peoples, languages, cultures, and societies of the Near/Middle East. Loosely defined as stretching from Morocco in the west to Iran and Afghanistan in the east, the region is home some of the world's major religions and civilizations. Its languages, religions, literatures, and great works of art have continued to shape our world, from the earliest permanent human settlements to today's news headlines.

The Department offers instruction in a range of thematic courses and languages – ancient and modern – including Akkadian, Arabic, Aramaic, Armenian, Egyptian, Hebrew, Persian, Sumerian, Syriac, Turkish, and Yiddish.

The concentration offers students a multi-faceted and inter-disciplinary perspective on Near Middle Eastern cultures and languages that have been so influential throughout the world. Undergraduate concentrators develop skills in one or more of the languages of the region on their way to choosing from a wide variety of directions of study. Concentrators choose one of four specific tracks: The Middle East in Antiquity, Histories and Cultures of Muslim Societies (Islamic Studies), Jewish Studies, or Modern Middle Eastern Studies.

Undergraduate students also have the option of applying for an A.B./A.M. degree. For further information, consult with the Office of Undergraduate Education. Finally, the Department offers secondary fields in the same four pathways listed above, as well as language citations in several Middle Eastern languages.

The NELC concentration is of interest to students who are considering careers in academia, government and Foreign Service, law, journalism, education, business, and divinity, among others, as well as those who anticipate graduate study in Near Eastern or related fields.

**FOCUS**
One of the strengths of the concentration in Near Eastern Languages and Civilizations is the individual attention each student receives in pursuing her or his interests within the broader arena of the Near/Middle Eastern Studies. Students choose one of four specific tracks for concentration: The Middle East in Antiquity, Jewish Studies, Histories and Cultures of Muslim Societies (Islamic Studies), or Modern Middle Eastern Studies. The director of undergraduate studies assists each student to make an informed choice among these options, and assigns a faculty member to serve as the student's mentor/adviser, advising on courses and other work as the student progresses. There is no set way to meet the requirements, and students will benefit from the close guidance of their assigned adviser.

**THE FOUR CONCENTRATIONS IN NELC**
**The Middle East in Antiquity** explores the histories of the civilizations of ancient Western Asia and North Africa, which witnessed the first complex societies and the first major developments in social and political organization. The legacies of these ancient cultures, represented by Assyriology, Egyptology, Archeology, and several other fields, remain a critical force in subsequent Middle Eastern—and world—history today. The goal of this track is to give students background in the history and culture of the principal civilizations of the region in order to analyze and synthesize linguistic, textual, artistic, and archaeological evidence.

**Jewish Studies** explores many facets of Jewish religion, law, literature, philosophy, and culture, and the histories of the Jews in the Middle East and beyond. To prepare students for independent study in one more areas of Jewish culture, the department offers courses at several levels in Hebrew and Yiddish. This track covers Jewish studies in ancient, medieval, and modern periods.

**Histories and Cultures of Muslim Societies (Islamic Studies)** focuses on the literary, philosophical and religious traditions of the Islamic world from the rise of Islam to the present day. The language-areas covered are Arabic, Persian, Turkish and Urdu. The program in Histories and Cultures of Muslim Societies is structured to allow students flexibility in their approach to the field, and students are encouraged to incorporate disciplinary perspectives currently available in the Harvard curriculum (for example, comparative literature, philosophy, politics, religious studies, and sociology).

**Modern Middle Eastern Studies** explores the cultures, histories, and politics of modern Middle Eastern societies and diasporas. Such study involves a combination of courses in a variety of fields drawn especially from the humanities and social sciences. The requirements are designed with sufficient flexibility so that students may pursue the field as an introduction to the region as a whole, or as a more narrowly focused exploration of a particular country or theme, depending on their interests.

**REQUIREMENTS**
**Basic Requirements: 12 courses (48 credits)**

1. *Required courses:*
    1. Four courses in a language of the Near/Middle East. The language will be chosen in consultation with the student's mentor/adviser to fit each student's particular focus. If students can show evidence at the beginning of their concentration that they already have two years' knowledge of their language, they will be asked to take the two years at a more advanced level or in another language relevant to their focus. Students are encouraged, in other courses for their concentration, to find ways to use their NELC language.
    2. Five courses to be chosen in consultation with the student's mentor/adviser, in addition to the tutorials listed below. These should represent a coherent intellectual program. None of these courses may be taken Pass/Fail, with the possible exception of a Freshman Seminar (graded SAT/UNS) already taken by the student, providing that this Seminar is accepted as relevant by the student's departmental mentor/adviser and the Director of Undergraduate Studies.
2. *Tutorials*:
    1. *Sophomore year*: Near Eastern Civilizations 101 (one half-course). A group tutorial required of all concentrators, given in the spring term. It will comprise an introduction to the cultures, history, religion, literatures and politics of the Near/Middle East in ancient, classical, and modern times, and will also emphasize major themes and problems that cut across individual cultures and historical periods. The tutorial is team-taught by NELC and affiliated faculty members. The student chooses the track in NELC by the end of the Sophomore year.
    2. *Junior year:* Junior year: In the fall of the Junior year, concentrators are assigned a departmental concentration adviser based on their concentration. To fulfil their concentration requirements, students meet with other department concentrators in a seminar every second week throughout their Junior year. With the help of their adviser, they define a research topic, compile a bibliography, and write a research paper under their adviser's supervision during either the Fall or the Spring semester. The grade for the Junior year (98r) is given in the spring semester.
    3. *Senior year*: Concentrators meet for the biweekly concentration seminar to present and discuss their own work and that of their peers, as they research, prepare and write their Senior Thesis under the guidance of their academic adviser. Concentrators opting out of the Senior Thesis submit a shorter research paper under the supervision of their departmental concentration adviser (see below) and still attend the biweekly seminar.
3. *Thesis*: Not required.
4. *General Examination*: Required. An oral examination based on the student's work, to be arranged under the supervision of the student's mentor and the Director of Undergraduate Studies.

**Requirements for Honors Eligibility: 14 courses (56 credits)**

1. *Required courses*: Same as **Basic Requirements** above.
2. *Tutorials*: Same as **Basic Requirements** except, in the senior year, a full year (2 courses) of Near Eastern Civilizations 99, focused on the writing of the senior thesis, is required.
3. *Thesis*: Required. For guidelines on writing the honors thesis, please consult the departmental publication, A Guide to the Senior Honors Thesis, available in the NELC office and on the website.
4. *General Examination*: Required. This will be based on the student's concentration courses and thesis, and will be arranged under the supervision of the student's mentor/adviser and the

Director of Undergraduate Studies.

**Joint Concentration**
Possibilities for joint concentrations exist and are welcome in NELC. The Department has formalized joint concentrations with the Departments of Government and History whose requirements are indicated below. For joint concentration with any other Departments, the student must make a case for it to both NELC and the other department or program concerned. Joint concentrators take four terms of a language, the sophomore and junior tutorials, and at least one other course in Near/Middle Eastern studies, in addition to a senior tutorial in two terms focused on the writing of a senior thesis that combines the two fields.

**Concentration requirements for the Joint Concentration in Near Eastern History: 14 courses (56 credits)**

1. *Near Eastern Language Courses (4 courses)*: Four courses of study of a Near Eastern language.
2. *Additional Coursework (8 courses)*
    1. History 97.
    2. NEC 101.
    3. Both tutorials are offered in the spring term only; students may choose to take both during their sophomore spring, or to take one in the sophomore spring and the other in the junior spring.
    4. One seminar focused on Near Eastern History or an equivalent type of research seminar in NELC that meets with the approval of the Undergraduate Office and culminating in a 20-page research paper involving primary source research. Must be completed by the end of the junior spring, in preparation for the senior thesis.
    5. One course that focuses significantly on U.S. or European history.
    6. One course in pre-modern Near Eastern History.
    7. One course in modern Near Eastern History.
    8. Two additional electives within Near Eastern History
3. *Senior Thesis* (2 courses): Students who wish to pursue a joint concentration in Near Eastern History must write a Senior Thesis, which also requires enrollment in one of two year-long Senior Thesis Seminars: either History 99 or Near Eastern Studies 99. Students may select either seminar.

*Please also note the following information:*
Two types of courses count automatically toward NELC/History concentration requirements:

1. Courses listed in the course catalogue's "History" section and approved courses in the catalogue's "Near Eastern Languages and Civilizations" section, as determined in consultation with the History DUS.
2. Courses taught in the General Education and/or Freshman Seminar programs by full members of the History or NELC Department Faculty. Students wishing to count such courses toward their concentration requirements should consult the Undergraduate Office, as they may need to file a petition requiring approval by the Director of Undergraduate Studies. Students may also apply to do an independent study, or History 91r, with a member of the Department; History 91r can be used to fulfill one of the elective course requirements.

The joint concentration also regularly accepts credit from both Study Abroad and Advanced Standing toward concentration requirements. With the exception of certain Freshman Seminars taught by History or NELC faculty (see above), courses taken on Pass/Fail basis may not be counted for concentration credit.

**Joint concentration with other Departments: 9 courses**

1. *Required courses*: Four courses in a language of the Near/Middle East, plus at least one other course in the Near/Middle East dealing with literature, religion, government, economics, or society, as approved by the student's NELC mentor/adviser and the NELC Director of Undergraduate Studies.
2. *Tutorials*:
    1. *Sophomore year*: NEC 101 (one half-course) required.
    2. *Junior year*: NEC 98 or another course to be chosen with the guidance and approval of the

student's NELC mentor/adviser and the NELC Director of Undergraduate Studies.
3. *Senior year*: NEC 99ab (two courses, one per each semester) or two terms of tutorial in the other concentration. Should be registered with the primary concentration, and have the approval of the allied concentration.

3. *Thesis*: Required. Thesis must be related to both fields. Both concentrations will participate in the grading of the thesis.
4. *General Examination*: Same as **Requirements for Honors Eligibility**; however, it will normally involve faculty from both concentration departments/programs.

**ADVISING**
Sophomores and other new concentrators meet first with the Director of Undergraduate Studies, with whom they discuss their interests and arrange to meet with a member of the faculty who will serve as mentor/adviser in the concentration. Junior and senior concentrators meet with their mentors on a regular basis.
For up-to-date information on advising in Near Eastern Languages and Civilizations, please see the Advising Programs Office website.

**RESOURCES**
Harvard's library resources in the various fields of Near Eastern Studies are virtually unparalleled. Widener Library, for example, has a large collection of materials in Akkadian, Arabic, Armenian, Egyptian, Hebrew, Persian, Sumerian, Turkish and Yiddish with several reading rooms specifically assigned to fields studies in NELC. The reading room of the Center for Middle Eastern Studies and the Andover-Harvard Library of the Harvard Divinity School also has excellent resources available to students. Students wishing to specialize in modern Near Eastern political or social studies should familiarize themselves with the resources and personnel of the Center for Middle Eastern Studies (38 Kirkland Street). Those interested in Jewish studies should become familiar with the resources and personnel of the Center for Jewish Studies, located in the Semitic Museum, 2nd floor. The Harvard Semitic Museum, in which the Department is housed, has a superb collection of ancient and medieval manuscripts and artifacts representing many of the cultures of the Near East. As a University teaching museum, the Harvard Museum of the Ancient Near East is committed to providing access to these materials for study and teaching. For concentrators interested in the archaeology of the Near East, a variety of opportunities for archaeological work in the area available.

**HOW TO FIND OUT MORE**
Students interested in a concentration in Near Eastern Languages and Civilizations should arrange to meet with the Director of Undergraduate Studies, Gojko Barjamovic (barjamovic@fas.harvard.edu). Students are also encouraged to obtain a copy of our undergraduate handbook, The Concentration in Near Eastern Studies at Harvard, which is available online.

**ENROLLMENT STATISTICS**
**Number of Concentrators as of December**

| Concentrators | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Near Eastern Languages and Civilizations | 13 | 10 | 14 | 17 | 21 | 18 | 13 | 8 | 4 | 8 | 7 | 4 |
| Near Eastern Languages and Civilizations + another field | 1 | 1 | 0 | 0 | 0 | 1 | 2 | 4 | 5 | 2 | 2 | 2 |
| Another field + Near Eastern Languages and Civilizations | 4 | 2 | 2 | 2 | 1 | 2 | 3 | 4 | 7 | 7 | 10 | 8 |

# Neuroscience

**Professor Jeff Lichtman, Head Tutor**

Neuroscience, the study of the nervous system, is a field that investigates the biological mechanisms that underlie behavior and how brains process information. To develop a comprehensive understanding, we study the nervous system at every level: from the macroscopic (behavior and cognition) to the microscopic (cells and molecules). Consequently, the questions that neuroscientists ask are wide-ranging. For example, how do electrical, chemical, and molecular signals allow neurons to process and transmit information from the environment? What guides the development of the immense number of precise connections in the nervous system? How can the complex signals of many thousands of active neurons be recorded, interpreted, and modeled? What causes the profound behavioral deficits in Alzheimer's disease or Autism Spectrum Disorder?

To answer these kinds of questions, neuroscientists study a variety of model systems including cultured cells, fruit flies, zebrafish, mice, monkeys, and humans. Simpler systems allow experimental manipulations (e.g., gene knockouts/knockins, drug treatments, activity silencing) and invasive recording techniques (e.g., electrically/optically recording neurons and networks, electron microscopy of the synapses and circuits). Studies in humans often focus on characterizing patterns of brain activity during development or disease using non-invasive recording techniques (e.g., fMRI and EEG). Neuroscientists may also use approaches from computer science and mathematics to analyze signals that arise from the brain or to understand the computational properties of neural networks. Thus, the study of neuroscience provides both a broad scientific training and a deep understanding of the biology of the nervous system. Given the diversity of interests in this field, the only prerequisite for students entering this concentration is an intense curiosity about the brain.

The Neuroscience curriculum includes a series of fundamental courses in the life and applied sciences. A central course on the neurobiology of behavior, Neuro 80 (formerly MCB 80), lays out the body of knowledge in neuroscience. In advanced elective courses, students explore specific areas of neuroscience more deeply based on their interests. We now list over 40 advanced courses on a range of topics: cells and circuits, physiology, learning and memory, cognitive science, development, genetics, computational modeling, and disease and therapeutics. In addition to the course offerings, neuroscience is one of the most vibrant fields of research at Harvard, and students have many opportunities for hands-on laboratory experience and independent research projects to complement and deepen their studies.

We offer three tracks within the Neuroscience concentration. The first, the 'Neurobiology Track', provides the greatest focus on biology coursework and provides a flexible foundation in the life and physical sciences. For this track, Honors is optional. The second track, the 'Mind, Brain, and Behavior Track', allows students to look beyond the biology of the brain and see how other disciplines (e.g., economics, computer science, history of science, linguistics, philosophy, psychology, etc.) approach the study of the mind. This is an Honors track and requires an undergraduate thesis. The third track, the 'Computational Neuroscience Track', allows students to develop skills in mathematics and computer science to analyze and model the signals of the brain. For this track, Honors is optional.

**REQUIREMENTS**
**Basic Requirements:**

1. *Required courses:*
    1. Neurobiology Track: 13 courses (52 credits)
        1. *Three courses in biology:*
            1. Life Sciences 1a (or Life and Physical Sciences A) and Life Sciences 1b
            2. One course chosen from the following: HEB 1420, Life Sciences 2, MCB 60, MCB 63, MCB 64, MCB 65, MCB 68, OEB 50, OEB 53; SCRB 50
        2. *Five courses in neuroscience:*
            1. Neuro 80
            2. One course chosen from the following (recommended sophomore or junior year): Neuro 57, 105, 115, 120, or 125
            3. Three advanced courses in neuroscience (chosen from a list maintained on the concentration website)
        3. *Three courses in physical or applied science fields:*
            1. Ordinarily, all courses in Chemistry, Physical Sciences, and Physics or Applied Physics fulfill this requirement; select courses in Computer Science, Earth and Planetary Sciences, Engineering Sciences, and Mathematics/Statistics may also fulfill this requirement
        4. *Two courses in math* (at or above the level or Math 1a or Math Mb), applied math,

statistics, or programming, as described below:
    1. All students must demonstrate a fundamental understanding of basic calculus. This can be accomplished by either: having received an AP calculus score of 4 or 5 (AB or BC), having placed above Math 1a on the Harvard placement exam, or having completed Math 1a (or Math Ma and Mb).
    2. For students who have fulfilled the basic calculus requirement above, we recommend one course in computer programming (e.g., CS 50) and/or one course in statistics (e.g., Stat 102)
2. Mind, Brain, and Behavior (MBB) Track: 16 courses (64 credits) (Honors Only Track)
    1. **Same as Neurobiology Track Requirements**, except as noted below
        1. *Two advanced courses in neuroscience* (chosen from a list maintained on the concentration website) instead of three.
        2. *Two courses in physical or applied science fields* instead of three. Ordinarily, all courses in Chemistry, Physical Sciences, and Physics or Applied Physics fulfill this requirement; select courses in Computer Science, Earth and Planetary Sciences, Engineering Sciences, and Mathematics may also fulfill this requirement.
    2. *Two approved Mind, Brain, and Behavior course electives* chosen from a list maintained on the concentration website. Not all of the courses listed in the Mind, Brain, and Behavior course search at courses.my.harvard.edu are appropriate MBB electives for Neuroscience concentrators.
    3. *Seminar in Mind, Brain, Behavior (MBB 980):* one course, letter-graded, recommended junior year.
    4. *Honors with Thesis*: Required (See Honors Requirements items 1B and 2).
    5. *Other information*: Students pursuing the Mind, Brain, and Behavior track are also expected to participate in key university-wide Mind, Brain, and Behavior activities, including the all-day MBB junior symposium and a non-credit senior year workshop for MBB thesis writers. Students are encouraged to join the student organization Harvard Society for Mind, Brain, and Behavior (HSMBB)
3. Computational Neuroscience Track: 14 courses (56 credits)
    1. *Three courses in mathematics and statistics:*
        1. Multivariable calculus: Math 19a, 21a, 23b, 25b, or Math 55b; Applied Math 21a.
        2. Linear algebra: Math 18/19b, 21b, 23a, 25a, or 55a; Applied Math 21b.
        3. Statistics 110.
    2. *Two courses in computer science:*
        1. CS 50. Note, students who skip CS 50 must take both CS 51 and CS 61.
        2. CS 51 or CS 61.
    3. *Two courses in biology:*
        1. Any one of the following: Life sciences 1a (or LPSA), 1b, or 2; HEB 1420; MCB 60, 63, 64, 65, or 68; OEB 50 or 53; SCRB 50.
        2. One approved 100-level HEB, MCB, OEB, or SCRB course, or any second course from the list above.
    4. *Five neuroscience courses:*
        1. Neuro 80.
        2. One foundational quantitative neuroscience course Neuro 105, 115, or 120.
        3. One additional advanced quantitative neuroscience course: AM 226; BME 130; MCB 131; Neuro 105, 115, 120, 130, 140, 141; Psych 1401, 1451.
        4. Two additional advanced courses in neuroscience (chosen from a list maintained on the concentration website).
4. *Any two courses in modeling and analysis* from a restricted set of Applied Math, CS, Eng-Sci, MCB, and Statistics courses (chosen from a list maintained on the concentration website)
5. Other Information:
    1. *Pass/Fail*: All requirements for the concentration must be taken for a letter grade.
6. *Tutorials*: Different Neuro 101-level courses are offered each year. These tutorials are counted as advanced neuroscience courses. Neuro 101-level courses (full year 4 credit courses) are indivisible and cannot be divided or combined for credit. Only one tutorial may count towards the advanced neuroscience course requirement. Tutorial seminars that are offered each year are listed on the concentration website and in the course search in courses.my.harvard.edu.
7. *LS50 (16 credits)*: Normally LS50 can be counted as two courses in biology, one course in the physical sciences, and one course in mathematics.

8. *Other Course Credit:* Ordinarily, Harvard Summer School courses (other than Organic Chemistry) may not count towards the concentration except by petition. Courses taken through study abroad programs may be counted by petition. Courses taken at other Harvard faculties (e.g., Harvard Medical School) may count for credit if the course is one of the approved advanced neuroscience courses; otherwise, it may be counted by petition.

**Requirements for Honors Eligibility: 14-16 courses (56-64 credits)**

1. *Required courses:*
    1. Same as Basic **Requirements in 1A, 1B, or 1C**.
    2. One course in independent research (Neuro 91, 99, or LS 100/MCB 100)
2. *Thesis*: Optional for the award of Honors or High Honors in Field, but required for Highest Honors in Field. The thesis is based on original research in neuroscience and is ordinarily conducted in a laboratory. In their final semester, students are encouraged to take Neuro 99, the thesis-writing tutorial. All students planning to submit a senior thesis must submit a short thesis proposal, usually during the spring term of junior year. The thesis proposal form is available on the concentration website. Members of the Committee on Degrees in Neuroscience evaluate theses based on input from the mentor and other faculty reviewers.

**Requirements for Joint Concentrations**
*Students interested in a joint concentration should consult the advisers in both concentrations at an early date.*

1. Neuroscience as the Primary Field: 14-16 courses (56 credits)
    1. Students must satisfy the requirements of one of the three tracks above.
    2. Thesis required; must strongly relate to both fields and be approved by advisers from both concentrations.
    3. Students may double count a maximum of two courses between concentrations.
2. Another concentration as the Primary Field: 8 courses (32 credits)
    1. Students must satisfy the following requirements:
        1. One course in statistics, computer science, applied math or math (above the level of Math 1a, or equivalent).
        2. Two courses in biology as described in Requirement 1.C.c. above.
        3. Neuro 80.
        4. One course from the following: Neuro 57, 105, 115, 120, or 125.
        5. Three advanced courses in neuroscience (chosen from a list maintained on the concentration website
    2. Thesis required; must strongly relate to both fields and be approved by advisers from both concentrations.
    3. Students may double count a maximum of two courses between concentrations.

**ADVISING**
Dr. Ryan Draft and Dr. Laura Magnotti, the Neuroscience Concentration Advisers, are available to provide guidance to concentrators and pre-concentrators on course selection, laboratory research, and fulfilling concentration requirements. Visit https://www.mcb.harvard.edu/undergraduate/neuroscience/ or contact Dr. Draft (BioLabs Room 1082A, 16 Divinity Ave., 617-496-9908, draft@fas.harvard.edu) or Dr. Magnotti (BioLabs Room 1082C, 16 Divinity Ave., 617-496-2432, magnotti@fas.harvard.edu) for more information. The Head Tutor and members of the Committee on Degrees in Neuroscience also provide mentoring on academic and career issues.

For up-to-date information on advising in Neuroscience, please see the Advising Programs Office website or the concentration website.

**HOW TO FIND OUT MORE**
Head Tutor of Neuroscience: Professor Jeff Lichtman, NW 249.50 Northwest Building, 52 Oxford St. Cambridge, MA 02138, 617-496-8943. Neuroscience Concentration Advisers: Dr. Ryan Draft, BioLabs 1082A, 16 Divinity Ave., 617-496-9908, draft@fas.harvard.edu; Dr. Laura Magnotti, BioLabs 1082C, 16 Divinity Ave., 617-496-2432, magnotti@fas.harvard.edu. More information about the Neuroscience concentration can also be found at https://www.mcb.harvard.edu/undergraduate/neuroscience/.

**ENROLLMENT STATISTICS**
**Number of Concentrators as of December**

| Concentrators | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Neurobiology* | 157 | 207 | 227 | 253 | 228 | 230 | 207 | 205 | 187 | 194 | 218 | 229 |

*Neurobiology began offering joint concentrations in 2018-19.

# Philosophy

**Dr. Cheryl Chen, Director of Undergraduate Studies**

Philosophy studies many of humanity's fundamental questions: how should we live, what kind of society should we strive towards, what are the limits of human knowledge? What is truth? Justice? Beauty? These questions are central to our lives, because in much of what we do, we at least implicitly assume answers to them.

Philosophy seeks to reflect on these questions and answer them in a systematic, explicit, and rigorous way—relying on careful argumentation, and drawing from outside fields as diverse as economics, literature, religion, law, mathematics, the physical sciences, and psychology. And while most of the tradition of philosophy is Western, we seek to connect with non-Western traditions like Islam and Buddhism, as well.

Philosophy doesn't just operate at this most abstract of planes. We often investigate more specific issues in our classes.

- What is race, and what does justice require when it comes to race?
- What is gender?
- What are the ethical issues raised by technology in society?
- When and why is punishment justified?
- How should we interpret quantum mechanics?
- How does language play into the constitution of ourselves and our society?
- In what sense are various kinds of facts, like natural and social facts, objective?
- Is the mind best thought of as a computer?
- What are the ethical challenges of climate change?

Philosophical questions are everywhere. If you find yourself drawn to them, studying philosophy in college is likely the best opportunity in your life to deeply engage with them. In fact, many concentrators find their way into philosophy from other disciplines, where they encounter interdisciplinary or foundational questions that can only be addressed through philosophical reflection. And given the small size of the department, concentrators have the rare opportunity to closely engage with dedicated faculty at the top of their fields.

Whether they take just a course or two or end up concentrating, students find studying philosophy to be among the most rewarding intellectual experiences of their college careers. The department offers a rich array of classes to choose from, and students develop their own responses to the philosophical problems that attract them in conjunction with their study of philosophical writing. The department's introductory courses help students to develop their reading, writing, and reasoning skills while acquainting them with broad surveys of major areas and historical periods. The department's more advanced courses focus on more specific topics and allow students to explore their interests in the context of the broad foundation they acquired in the introductory courses.
Harvard philosophy concentrators have gone on to pursue diverse and fulfilling careers in law, finance and consulting, business, internet start-ups, medicine, journalism, the arts, non-profit work, education, and academia. The skills that philosophy teaches students will always be in high demand: the ability to think and write clearly, the ability to bring to light unnoticed presuppositions, to explain complex ideas clearly, to tease out connections and implications, to see things in a broader context, to challenge orthodoxy. In short, philosophy gives you skills that you can apply to any line of work.

**OPTIONS**

- Philosophy

- Mind, Brain, and Behavior Track
- Joint Concentrations with Philosophy

**REQUIREMENTS**
**Basic Requirements: 12 courses (48 credits)**

1. *Required courses:*
    1. One course in each of the following four areas, taken by the end of the first term of senior year and passed with a grade of C– or better:
        1. Logic.
        2. Contemporary metaphysics, epistemology, philosophy of science, philosophy of mind, philosophy of language.
        3. Ethics, political philosophy, aesthetics.
        4. History of ancient, medieval, or modern pre-20th-century philosophy.
    2. *Tutorials*: Two courses. See item 2 below.
    3. Six additional courses in philosophy, up to three of which may be in approved related subjects. Related courses are approved individually by the Director of Undergraduate Studies, in many cases depending on the interests and overall program of the student. They count for concentration credit only if they are needed to reach the minimum number of concentration courses required.
2. *Tutorials*:
    1. *Tutorial I: Philosophy 97*, group tutorials at the introductory level on different philosophical topics, required. Letter-graded. A one-semester course typically taken in the spring of the sophomore year.
    2. *Tutorial II: Philosophy 98*, group tutorials at the advanced level on different philosophical topics, required. Letter-graded. A one-semester course typically taken fall or spring of the junior year.
3. *Thesis*: None.
4. *General Examination*: None.
5. *Other information*:
    1. Philosophy courses may include courses listed under Philosophy in the course search in courses.my.harvard.edu.
    2. *Pass/Fail*: All courses counted for the concentration must be letter-graded.
    3. No more than four courses numbered lower than 91 may be counted for the concentration.

**Requirements for Honors Eligibility (Thesis): 13 courses (52 credits)**

1. *Required courses:*
    1. One course in each of the following five areas, taken by the end of the first term of senior year and passed with a grade of C– or better:
        1. Logic.
        2. Contemporary metaphysics, epistemology, philosophy of science, philosophy of mind, philosophy of language.
        3. Ethics, political philosophy, aesthetics.
        4. History of ancient or medieval philosophy.
        5. History of modern pre-20th-century philosophy.
    2. *Tutorials*: Four courses. See item 2 below.
    3. Four additional courses in philosophy, up to two of which may be in approved related subjects. Related courses are approved individually by the Director of Undergraduate Studies, in many cases depending on the interests and overall program of the student. They count for concentration credit only if they are needed to reach the minimum number of concentration courses required.
2. *Tutorials*:
    1. Same as **Basic Requirements**.
    2. Same as **Basic Requirements**.
    3. *Senior Tutorial*: Philosophy 99, individual supervision of senior thesis. Permission of the Director of Undergraduate Studies is required for enrollment. Graded Sat/Unsat. Honors candidates ordinarily enroll in both fall and spring terms. Enrolled students who fail to submit a thesis when due must, to receive a grade above Unsat for the course, submit a substantial paper no later than the beginning of the spring term Reading Period.
3. *Thesis*: Required of all senior honors candidates. Due at the Tutorial Office on the Friday after

spring recess. No more than 20,000 words (approximately 65 pages). Oral examination on the thesis, by two readers, during the first week of spring Reading Period.
4. *General Examination*: None.
5. *Other information*: Same as **Basic Requirements**.

**Requirements for Honors Eligibility (Non-Thesis): 14 courses (56 credits)**
*Students who earn honors through this track are only eligible to graduate with honors, not with high or highest honors.*

1. *Required courses:*
    1. One course in each of the following five areas, taken by the end of the first term of senior year and passed with a grade of C– or better:
        1. Logic.
        2. Contemporary metaphysics, epistemology, philosophy of science, philosophy of mind, philosophy of language.
        3. Ethics, political philosophy, aesthetics.
        4. History of ancient or medieval philosophy.
        5. History of modern pre-20th-century philosophy.
    2. *Tutorials*: Two courses. See item 2 below.
    3. Seven additional courses in philosophy, up to three of which may be in approved related subjects. Related courses are approved individually by the Director of Undergraduate Studies, in many cases depending on the interests and overall program of the student. They count for concentration credit only if they are needed to reach the minimum number of concentration courses required.
2. *Tutorials*:
    1. Same as **Basic Requirements**.
    2. Same as **Basic Requirements**.
3. *Thesis*: None.
4. *General Examination*: None.
5. *Other information:*
    1. Same as **Basic Requirements**.
    2. Same as **Basic Requirements**.
    3. Same as **Basic Requirements**.
    4. Students must have an honors GPA of 3.7 or above. A student's honors GPA is computed as follows. All and only the courses that count towards concentration GPA count towards the honors GPA. Courses are weighted according to year in which they are taken.
        1. Courses in the first year are weighted normally.
        2. Courses in the second year are weighted with a multiplier of 1.2.
        3. Courses in the third year are weighted with a multiplier of 1.4.
        4. Courses in the fourth year are weighted with a multiplier of 1.5.

**Mind, Brain, and Behavior Track**
**15 courses (60 credits)**
Students interested in studying philosophical questions that arise in connection with the sciences of mind, brain, and behavior may pursue a program of study affiliated with the University-wide Mind/Brain/Behavior (MBB) Initiative, which allows them to participate in a variety of related activities. MBB track programs must be approved on an individual basis by the Philosophy MBB adviser. Further information can be obtained from the Undergraduate Coordinator.

1. *Required courses:*
    1. Three basic MBB courses:
        1. Science of Living Systems 20 or Psychology 1.
        2. Molecular and Cellular Biology 80.
        3. Junior year seminar in Mind, Brain, and Behavior.
    2. Philosophy 156.
    3. One course in logic.
    4. Three further courses in contemporary metaphysics, epistemology, philosophy of science, philosophy of mind, or philosophy of language.
    5. Two courses covering two of the following three areas: history of ancient philosophy, history of modern philosophy, ethics.
    6. Two further MBB-listed courses from outside the Philosophy department, to be selected in

consultation with the MBB adviser.

2. *Tutorials*:
    1. *Tutorial I*: Same as **Basic Requirements.**
    2. *Senior Tutorial*: Same as **Requirements for Honors Eligibility**.
3. *General Examination*: None.
4. *Other information*: Same as **Basic Requirements**.

**Joint Concentrations: Philosophy as Primary Concentration**
**8 courses in Philosophy (36 credits)**

1. *Required courses:*
    1. One course in four of the five areas (see item 1a of Requirements for Honors Eligibility).
    2. Four additional courses in philosophy; tutorials count toward this requirement.
    3. At least four courses in the other field. Many departments require more; consult the Head Tutor of other field.
2. *Tutorial*: Tutorial I, Philosophy 97 (usually taken in the sophomore year). Normally a tutorial is also required in the other field.
3. *Thesis*: Required as for honors eligibility in Philosophy but must relate to both fields. Oral examination by two readers, one from each department.
4. *General Examination*: None required in Philosophy.
5. *Other information:*
    1. No more than three courses numbered lower than 91 may be counted for the concentration.
    2. Other requirements are the same as **Basic Requirements**.

**Another Field as Primary Concentration**
**6 courses in Philosophy (24 credits)**

1. *Required courses:*
    1. One course in three of the five areas (see item 1a of Requirements for Honors Eligibility). The introductory course (item 1a) also counts toward this requirement.
    2. Three additional courses in philosophy; tutorial counts toward this requirement.
2. *Tutorial*: Tutorial I, (Philosophy 97), usually taken in the junior year.
3. *Thesis*: Required. Must relate to both fields. Directed in the primary field; one reader from Philosophy.
4. *General Examination*: None required in Philosophy.
5. *Other information:*
    1. No more than two courses numbered lower than 91 may be counted for the concentration.
    2. Other requirements are the same as **Basic Requirements**.

**ADVISING**
Advising is done by the Director of Undergraduate Studies, Dr. Cheryl Chen, and the Assistant Director of Undergraduate Studies. Their office hours are posted on the philosophy department's website.
For up-to-date information on advising in Philosophy, please see the Advising Programs Office website.

**RESOURCES**
The Department of Philosophy is housed in Emerson Hall, which contains the department and tutorial offices, the offices of faculty members and teaching fellows, and the Robbins Library of Philosophy.

**HOW TO FIND OUT MORE**
Further information may be obtained from Ms. Nyasha Bovell, Undergraduate Coordinator, in the tutorial office, Room 308 Emerson Hall; nyashabovell@fas.harvard.edu.

**ENROLLMENT STATISTICS**
**Number of Concentrators as of December**

| Concentrators | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Philosophy | 48 | 61 | 53 | 58 | 45 | 41 | 45 | 52 | 51 | 58 | 58 | 58 |
| Philosophy + another field | 1 | 4 | 7 | 7 | 7 | 5 | 4 | 6 | 11 | 15 | 13 | 16 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Another field + Philosophy | 8 | 9 | 9 | 6 | 9 | 9 | 10 | 15 | 17 | 28 | 38 | 43 |

# Physics

**Professor Howard Georgi, Director of Undergraduate Studies**
**Dr. David Morin, Co-Director of Undergraduate Studies**

The concentration in Physics, administered by the Department of Physics, serves a variety of goals and interests. Many concentrators seek an understanding of the subtle, profound, and fundamental laws—relativity, quantum mechanics, and the basic force laws—that govern the behavior of all matter. Often these studies involve the smallest units of matter: molecules, atoms, nuclei, and sub-nuclear particles. A major interest of other Physics concentrators is the exploration and explanation of the diverse properties to which these laws give rise in macroscopic systems such as fluids and solids. Still others study aspects of more complex systems like oceans and atmospheres, stars, and living matter.

A concentration in Physics provides a foundation for subsequent professional work in physics, and also for work in computer science, astronomy, biophysics, chemical physics, engineering and applied physics, earth and planetary sciences, geology, astrophysics, and the history and philosophy of science. Less obviously perhaps, the intellectual attitudes in physics -- blending imagination, prediction, observation, and deduction -- provide an excellent base for subsequent graduate work in professional schools of medicine, education, law, business, and public administration.

It should be emphasized that since all the physical sciences require basic training in physics and mathematics, an early choice of concentration need not be a final one. It is quite possible to design a program that will permit a change in concentration at the end of the sophomore year or even later. For example, a student who has satisfied most of the requirements for a concentration in astronomy probably has also satisfied most of the physics requirements as well, and vice versa.

The department tries to provide the essential content of undergraduate physics in concentrated form, leaving students sufficient time to develop interests through related courses offered by other science departments, to pursue more advanced and specialized aspects of physics through graduate-level courses and independent study or laboratory work, or to take advantage of the opportunities Harvard provides for a broad liberal arts education. Keeping the number of required courses small (twelve courses in physics and related fields; 13 courses for honors candidates) allows individual students to construct programs suited to their interests and career plans.

There are several basic avenues for entering Physics or one of the other concentrations in which it plays a major role. One track is with the Physics 15a, 15b, 15c sequence of courses. Students may also begin with Physics 19 instead of Physics 15a. These options are recommended for those who have had a normal high school course in physics or no previous physics at all. Students who enter with the appropriate Advanced Placement background may begin their study of physics with Physics 16 instead of Physics 15a or 19. The Physics 15a, 15b, 15c courses are taught both terms, so that those students who wish to begin Physics in the second term may do so. Students may also begin with Physical Sciences 12a/b or Applied Physics 50a/b; see item 1.A in the Basic Requirements below.

The Physics department does not require that undergraduates take tutorials, i.e., individual instruction. This is not because independent study is considered unimportant, but rather because it has been deemed more important to keep the concentration requirements flexible enough to satisfy the differing goals of a great variety of students. There are programs that enable students to examine special fields and topics in some detail under the guidance of experts. We offer the following optional tutorial and independent study programs: (1) Physics 91r: individual study of material not covered in regular courses, supervised by a member of the department; (2) Physics 90r: individual research under the supervision of a faculty member interested in the field. The exact form of the project depends on the student's experience and interest, the nature of the particular field, and the availability of necessary facilities and funds. Concentrators desiring to write a senior thesis may do so under this program.

Physics does offer joint concentrations with other programs (e.g., Physics and Mathematics, Physics and Astronomy, and Physics and History and Science) with the provision that the student's Plan of Study be approved by the Director or Co-Director of Undergraduate Studies. Students must complete the Honors Physics track if Physics is the primary (first) field in the joint concentration; the Basic Physics track suffices if Physics is the allied (second) field. Within the Physics department we provide an Applied Physics option, which emphasizes courses covering physical applications (see Requirements for the Applied Physics Option). We also offer a Biophysics option, which allows a limited substitution of biology courses for physics-related courses (see Requirements for Biophysics Option). Finally, we offer a Physics and Teaching option, which provides both preparation in physics and eligibility for the teaching certificate required for public school teaching in many states (see Requirements for the Physics and Teaching Option). See also the concentration in Chemistry and Physics. We also collaborate in offering many of the courses required for concentrations in Astrophysics and in applied sciences.

No thesis or general examination is required for a degree with honors in Physics.

**OPTIONS**

- Physics
- Physics with Applied Physics emphasis
- Physics with Biophysics emphasis
- Physics and Teaching

**REQUIREMENTS**
**Basic Requirements: 12 courses (48 credits)**

1. *Required courses:*
    1. Physics 15a, 15b, 15c. Students may take Physics 19 instead of Physics 15a. Students who have demonstrated sufficiently strong preparation in physics and mathematics may take Physics 16 in place of Physics 15a or 19 (see item 5F). Students may also take Physical Sciences 12a/b or Applied Physics 50a/b in place of Physics 15a/b. These students should contact the Director or Co-Director of Undergraduate Studies, who will work with them to develop a coherent program.
    2. Physics 143a.
    3. Two courses at the level of Mathematics or Applied Mathematics 21a, 21b, or above. While not required, taking one or more additional mathematics courses is strongly recommended. Students should give special consideration to the courses listed in item 1C of the Requirements for Honors Eligibility.
    4. Two additional courses in physics (see item 5A).
    5. Additional courses in physics, or a related field (see item 5B), to complete the requirement of twelve courses (see item 5C).
2. *Tutorial*: None.
3. *Thesis*: None.
4. *General Examination*: None.
5. *Other information:*
    1. Courses counted as physics courses include:
        1. Applied Mathematics 201, 202.
        2. Summer School PHYS S-123ab, a seven-week course that counts as a course.
        3. Physical Sciences 10.
        4. Engineering Sciences 120, 123, 125, 128, 151, 153, 154, 170, 173, 175, 181, 190, and any 200-level course containing a significant amount of physics. See the Director or Co-Director of Undergraduate Studies for approval.
        5. Chemistry 160, 161, 242.
        6. Astronomy 120, 130, 151, 191, and any 200-level course.
        7. Applied Physics (100 or 200 level).
    2. Related courses include:
        1. Applied Mathematics.
        2. Applied Physics.
        3. Astronomy (except Astronomy 2 and 5).
        4. Chemistry.
        5. Computer Science.
        6. Earth and Planetary Sciences 50, 52, 112, 130, 131, 132, 133, 135, 136, 141, 162, 166,

and most 200-level courses. See the Director or Co-Director of Undergraduate Studies for approval.
7. Engineering Sciences.
8. Mathematics 1b or any 100- or 200-level Mathematics course.
9. Statistics (110 or higher).

3. Physics 90r and 91r can be used, together or individually, to satisfy at most two of the required courses.
4. *Satisfactory grades* (C- or better) are required in Physics 15a, 15b, and 15c (or higher-level substitutions).
5. *Pass/Fail*: Two courses may be taken Pass/Fail. These may not include Physics 15a, 15b, 15c, 16, or 19.
6. Students with exceptional preparation in physics may wish to discuss the possibility of substituting more advanced courses for some of these introductory courses. Written permission of the Director or Co-Director of Undergraduate Studies is required if this is done. Students who substitute more advanced courses for Physics 15b and/or 15c must complete the lab component of these courses, on a pass/fail basis. See the Co-Director of Undergraduate Studies for further information.

**Requirements for Honors Eligibility: 13 courses (52 credits)**

1. *Required courses:*
    1. Same as **Basic Requirements**.
    2. Same as **Basic Requirements**.
    3. Mathematics courses including at least two courses above the level of Mathematics 21a/b, 23a/b, 25a/b; or Applied Mathematics 21a/b, 22a/b. Students should consider especially Applied Mathematics 104 or Mathematics 113; Applied Mathematics 105 or Mathematics 110; Applied Mathematics 111; Applied Mathematics 115; Statistics 110.
    4. The laboratory course Physics 191 (see item 5I).
    5. Three additional courses in physics that should normally include Physics 143b and 181.
    6. Additional courses in physics, or a related field, to complete the requirement of 13 courses (see items 5G-H).
2. *Tutorial*: None.
3. *Thesis*: Optional. Students wishing to submit a thesis should obtain a copy of the departmental regulations from the office of the Co-Director of Undergraduate Studies, Lyman 238.
4. *General Examination*: None.
5. *Other information:*
    1. Same as **Basic Requirements**.
    2. Same as **Basic Requirements**.
    3. Same as **Basic Requirements**.
    4. Same as **Basic Requirements**.
    5. *Pass/Fail*: Two courses may be taken Pass/Fail. These may not include Physics 15a, 15b, 15c, 16, 19, or 191.
    6. Same as **Basic Requirements**.
    7. The total number of concentration courses taken during the student's college career (including study abroad or transfer credits) must be at least 13.
    8. Astronomy 191 may be substituted for Physics 191 with the permission (no later than the end of the student's seventh semester) of the Director of Undergraduate Studies by students who have demonstrated a serious academic interest in astrophysics by completing a number of appropriate courses in astronomy and astrophysics. Honors candidates are advised to obtain additional experience in experimental physics by assisting in research through Physics 90r, or by working during the summer in an industrial, university, or government laboratory.

**Requirements for the Applied Physics Option: 13 courses (52 credits)**

1. *Required courses:*
    1. Same as **Basic Requirements**.
    2. Same as **Basic Requirements**.
    3. Mathematics courses must include at least one course above the level of Mathematics 21a/b, 23a/b, 25a/b; or Applied Mathematics 21a/b, 22a/b. Among courses to choose from, consider especially Applied Mathematics 104, 105, 111, 115.
    4. The laboratory course Physics 191.

5. Physics 175 (Quantum Electronics and Modern Optics) and Engineering Sciences 173 (Electronic and Photonic Semiconductor Devices).
6. Additional courses in physics or a related field, to complete the requirement of 13 courses.

2. *Tutorial*: None.
3. *Thesis*: Optional.
4. *General Examination:* None.
5. *Other information:*
    1. Same as **Basic Requirements**.
    2. Same as **Basic Requirements**.
    3. Same as **Basic Requirements**.
    4. Same as **Basic Requirements**.
    5. Same as **Basic Requirements**.
    6. Same as **Requirements for Honors Eligibility**.
    7. Same as **Basic Requirements**.
    8. Same as **Requirements for Honors Eligibility**.
    9. Same as **Requirements for Honors Eligibility.**
    10. Applied Physics 190 (Materials Physics) or Applied Physics 195 (Solid State Physics), and Engineering Sciences 123 (Fluid Mechanics) are highly recommended.
    11. Students taking this option are advised to take Physics 123 and to obtain additional experience in experimental physics by taking Physics 90r or Engineering Sciences 91r, and/or by working during the summer in an industrial, university, or government laboratory.

**Requirements for the Biophysics Option: 13 courses**

1. *Required courses:*
    1. Same as **Basic Requirements**.
    2. Same as **Basic Requirements.**
    3. Same as **Basic Requirements.**
    4. Two courses of Physics 90r under the supervision of a member of the Committee on Higher Degrees in Biophysics or another biophysicist approved by the Director of Undergraduate Studies in Physics.
    5. Two additional courses in physics.
    6. Additional courses in physics or a related field, to complete the requirement of 13 courses.
2. *Tutorial*: None.
3. *Thesis*: Optional.
4. *General Examination*: None.
5. *Other information:*
    1. Same as **Basic Requirements**.
    2. Same as **Basic Requirements**.
    3. Same as **Basic Requirements**.
    4. Same as **Basic Requirements**.
    5. Same as **Basic Requirements**.
    6. Same as **Basic Requirements**.
    7. Same as **Basic Requirements**.
    8. Same as **Requirements for Honors Eligibility**.
    9. Same as **Requirements for Honors Eligibility**.
    10. In fulfilling the requirement in item 1F, a student may take up to two courses from the following: Life Sciences 1a, 1b; Molecular and Cellular Biology 52, 54, 56, and 80; and Biophysics courses numbered above 100.
    11. Students choosing this option are advised to take Physics 181 or Chemistry 161, and Physics 141 in completing the requirements for honors eligibility in Physics. They should also take steps to acquire a basic knowledge of organic chemistry in its relation to biochemistry, although they need not enroll in Chemistry 20.

**Requirements for the Physics and Teaching Option**

This option is offered by the Department of Physics to encourage well-prepared students with a degree in Physics to enter secondary school teaching in the much-needed areas of physics, physics and chemistry, physics and general science, and physics and mathematics. Students who choose this option will complete the Undergraduate Teacher Education Program (UTEP) as part of this program. They will thereby obtain eligibility for the teaching certificate required for public school teaching by about thirty states, including Massachusetts.

Note: Those who plan to teach only in independent schools will not need a teaching certificate, and hence do not need to take this program. However, they too may wish to take UTEP courses to enhance their career preparation. (Basic Physics concentrators who plan on teaching in public schools after graduation should inquire at the Graduate School of Education about the possibility of admission to UTEP, independent of this option.)

Under this option, there is a variety of choices depending upon the intended subject area of secondary school teaching.

**Physics with Teacher Certification in Physics**

1. *Required courses in physics and related subjects (13 courses):*
    1. Physics 15a (or 16 or 19), 15b, 15c as in the **Basic Requirements**.
    2. Physics 143a and 181.
    3. Mathematics at least through Mathematics 21a, 21b (or Mathematics 23a, 23b or Mathematics 25a, 25b).
    4. One course chosen from Life Sciences 1a, Physical Sciences 1, or Chemistry 40. See item 6E.
    5. One course in a related subject (see item 6B).
    6. Additional courses in physics or related subjects (see item 6B), to make a minimum total of 13 courses.
2. *Tutorial*: None.
3. *Thesis*: None.
4. *General Examination*: None.
5. *UTEP*: The course and teaching requirements of the Undergraduate Teaching Education Program must be completed before graduating under this program. These consist of four courses, including student teaching, as well as (non-course) fieldwork, as described in detail in the booklet entitled UTEP Courses that Form Part of the Requirements for the Physics and Teaching Options.
    1. Normally, it should be possible to meet the UTEP requirements and to also fulfill the requirements in item 1 above during a four-year period as an undergraduate; but it is also possible to graduate under the physics program without the Teaching Certification option and to complete the teacher preparation subsequently under UTEP as a post-baccalaureate student. To obtain more information on this option, contact the UTEP administrator (see item 6F).
6. Other information:
    1. *Courses counted as physics courses*: See item 5A of Basic Requirements.
    2. *Related courses*: See item 5B of Basic Requirements but also including the courses in history of science.
    3. Students who plan to count Physical Sciences 12a/b or Applied Physics 50a/b for the concentration should contact the Director or Co-Director of Undergraduate Studies, who will work with them to develop a coherent program.
    4. Pass/Fail: Two courses may be taken Pass/Fail. These may not include Physics 15a, 15b, 15c, 16, or 19.
    5. *The appropriate Advanced Placement* background may substitute for the required chemistry course in item 1D, but the minimum of 13 courses total of actual courses taken in items 1A-F must be completed.
    6. *Additional information regarding UTEP* can be found on the UTEP website. The UTEP Director (beth_simpson@gse.harvard.edu) is responsible for advising all students who are considering or are enrolled in the program. In addition, each student in this option will have a Physics department adviser for the subject area requirements.

**Physics with Teacher Certification in both Physics and Chemistry**
The requirements are the same as for **Teacher Certification in Physics**, except that:

1. Physics 143a and 181 are replaced by Chemistry 160 and 161.
2. An additional course, Chemistry 17 or 20, is also required; but the minimum number of subject area courses to be taken will still be 13.
3. If the UTEP program is not completed, Physics 143a must be taken to meet the basic requirements in Physics.

**Physics with Teacher Certification in Physics and General Sciences**
The requirements are the same as for **Teacher Certification in Physics**, with the addition of:

1. Two courses in biology, normally Life Sciences 1a and 1b; but the minimum number of subject area courses to be taken will still be 13.

**Physics with Teacher Certification in Physics and Mathematics**
The requirements are the same as for Teacher Certification in Physics, except that:

1. The one course in a related subject (see item 5B of Basic Requirements) must be chosen from mathematics, statistics, or computer science courses (excluding Mathematics Ma, Mb).
2. One additional course in probability and statistics is required, normally Statistics 100 or HGSE H-102.
3. One additional course in computer science is required, normally chosen from Computer Science 50 or 51.

*Note: It may be possible in items 2 or 3 to substitute other courses with a strong statistical or computer component, but in all cases the minimum number of subject-area courses taken must be 13.*

**ADVISING**
Students interested in concentrating in Physics should discuss their Plans of Study with the Director or Co-Director of Undergraduate Studies. When these are approved by the Co-Director of Undergraduate Studies, each undergraduate who elects to concentrate in Physics is assigned an additional faculty adviser. Students keep the same adviser until they graduate unless they request a change. It is expected that students will discuss their programs and review their progress with faculty advisers at the beginning of each term. Students are encouraged to seek advice at any time and can see their advisers at regularly scheduled office hours or by making an appointment. Students may also seek advice from the Director or Co-Director of Undergraduate Studies at any time.
For up-to-date information on advising in Physics, please see the Advising Programs Office website.

**RESOURCES**
The Science Center houses many modern facilities for undergraduate instruction in physics. For example, concentrators will find most of the books and journals needed for their undergraduate courses in the Godfrey Lowell Cabot Science Library which is located there. (More advanced references are available in the Physics Research Library in the Jefferson Laboratory.) In addition, the computers used in undergraduate physics courses are located in the Science Center as are the instructional laboratories, one in practical laboratory electronics, and an advanced physics laboratory.

Students desiring to extend their research experience beyond the experiments available through the teaching laboratories may obtain access through the Physics 90r program to facilities for ongoing research in atomic and molecular physics in the Lyman Laboratory, solid-state physics in the Gordon McKay Laboratory and the Laboratory for Integrated Science and Engineering, high energy physics in the High Energy Physics Laboratory, astrophysics through the Center for Astrophysics, and in biophysics through the various Biological Laboratories.

**HOW TO FIND OUT MORE**
For further information about the Physics concentration, the Physics department, and related departments with a major physics component, the best single reference is the pamphlet The SPS Guide to Physics and Related Fields. Copies are available from the Co-Director of Undergraduate Studies in Lyman 238. Information is also available at www.physics.harvard.edu/academics/undergrad.

Advice and personal consultation concerning the concentration can be obtained from the Director of Undergraduate Studies, Professor Howard Georgi, Jefferson 456, georgi@physics.harvard.edu (617-496-8293); or Co-Director of Undergraduate Studies, Dr. David Morin, Lyman 238, morin@physics.harvard.edu (617-495-3257). For office hours, check the website: www.people.fas.harvard.edu/~hgeorgi/.

**ENROLLMENT STATISTICS**
**Number of Concentrators as of December**

| Concentrators | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Physics | 79 | 64 | 57 | 38 | 52 | 52 | 55 | 56 | 61 | 56 | 50 | 46 |
| Physics + another field | 24 | 35 | 41 | 44 | 38 | 36 | 46 | 49 | 49 | 60 | 65 | 70 |
| Another field + Physics | 7 | 6 | 10 | 16 | 15 | 22 | 22 | 27 | 32 | 21 | 23 | 25 |

# Psychology

**Professor Jill Hooley, Director of Undergraduate Studies**

Psychology is the scientific study of the mind, and as such, we investigate the minds of humans and other species. We try to understand the mind at many different levels of analysis, from taking measurements from the brain, through learning about the individual, all the way to understanding groups and organizations. The kinds of questions psychologists attempt to answer are: How do we perceive the physical world? Does our view of it coincide with reality? How do we make sense of the social world? Can we really understand the minds of others? Which others, and do the groups “they” belong to matter? Why do we pay attention to some things and not others? How do memories form and how do we forget? Can we be said to have a memory even if we can’t “remember”? What are the rules by which we reason and think? What’s the role of emotion as expressed in the joy, surprise, sadness, anger and fear of everyday life as well as in depression, schizophrenia, and other disorders? What are the causes of these kinds of disorders, and how can they be treated? Are we rational beings or only boundedly so? Why do we believe in religion, do we have unshakable feelings of morality, and how best should we study our own consciousness? How do all these processes develop from infancy to adulthood? To answer these and other questions about the mind, psychologists pay attention to evolutionary factors, biological bases, cultural and social inputs, as well as the day-to-day situations in which individuals find themselves. Most of the research conducted in Harvard’s Department of Psychology concerns basic psychological processes such as attention, perception, memory, categorization, reasoning, decision-making, language, cognitive and social development, social cognition, intergroup relations, and morality. In addition, some members of the department conduct research on the etiology, development, and treatment of psychopathology. All members of the department share the common goal of understanding mind, brain, and behavior through empirical investigation, and their teaching and research reflect this goal.

As part of a liberal arts education, the primary goal of the Psychology concentration is to provide students with a fundamental understanding of the human mind. In the process of doing so, other goals will also be achieved: the skill to critically assess quantitative evidence from experimental and correlational data, to learn to take difficult and previously unstudied problems of mind and society and bring them under experimental scrutiny, to learn to speak and write about questions of great theoretical and social importance that involve the mind. Knowledge of human psychology informs students to be good practitioners of law, education, medicine, business, and life in general. Thus, the ultimate goal of the concentration is to engage students in the very exciting life of the mind.

The Department seeks to serve undergraduates with a diverse set of goals. It understands that a small number of concentrators seek to prepare themselves for graduate work in psychology or neuroscience; many plan to attend professional schools of law, medicine, public health, or business; and some see a concentration in Psychology as interesting and valuable intellectually but do not base their future vocational plans upon it. The Department has kept all these reasons in mind in designing its concentration requirements. The requirements have been structured so that students start with an Introductory Course that provides a broad introduction to the field, progress to Foundational Courses that each provide a more focused examination of a sub-area of psychology, and then take Advanced Courses in more specialized areas of interest.

**REQUIREMENTS**
**General Track in Psychology**
**Basic Requirements: 12 courses (48 credits)**

1. *Required courses:*
    1. *Introductory Course*: Psychology 1: Introduction to Psychological Science (formerly Science

of Living Systems 20), one course, recommended during the first year and required by the end of the sophomore year, or an approved substitute (see below). Letter-graded.
    1. PSYC S-1, offered in the Harvard Summer School.
    2. *Note*: It may be possible to substitute a Psychology AP score of 5 or IB score of 7, in which case an extra advanced course will be required. Please contact the Psychology Undergraduate Office at psychology@wjh.harvard.edu to learn more.
2. *Sophomore Tutorial*: Psychology 971, one course, required by end of sophomore year. Letter-graded. (See item 2.)
3. *Statistics*: Psychology 1900, one course, required by end of junior year. Must be passed with a grade of C- or higher.
4. *Foundational Courses*: Two courses, recommended by end of sophomore year. Letter-graded. Select two of Psychology 14, 15, 16, 18; Science of Living Systems 15; Neuroscience 80 (formerly Molecular and Cellular Biology 80) or Molecular and Cellular Biology 81 (only one of these courses may be taken).
5. *Research Methods*: Psychology 1901, one course, required by end of sophomore year. Letter graded. (Prior to Fall 2020, Psychology 1901 or one Lab Course selected from a list on the concentration's website. If returning from leave, please consult with the Psychology Undergraduate Office).
6. *Advanced Courses*: Six courses. All letter-graded. (See items 5A and 5B.) See the department's website for a list of advanced courses.

2. *Tutorial*: *Sophomore Tutorial*: Psychology 971 is a semester-long tutorial required for concentrators by the end of sophomore year. Sophomores planning to concentrate in psychology may enroll in the fall semester. Students who enter the concentration late should enroll in Psychology 971 upon entering the concentration. The sophomore tutorial will examine from a variety of perspectives issues and phenomena addressed in contemporary psychological research.
3. *Thesis*: None.
4. *General Examination*: None.
5. *Other information:*
    1. *Counting Non-departmental Courses toward the Advanced Course Requirement*: Up to two Non-departmental Courses may be taken in partial fulfillment of the Advanced Course requirement (see item 1F above). These courses may either come from a list of pre-approved Expedited Non-departmental Courses from the concentration website, or students may petition for approval to count a Non-departmental Course not already on the pre-approved list.
    2. *Petitioned Courses* are other Non-Departmental courses that students believe will contribute significantly to their study of psychology. These courses must include significant psychological content and relate directly to their own concentration program. A petition is required (forms available on the department website) and must be submitted by the appropriate deadline.
    3. *Expedited Courses* are Non-departmental Courses that include significant psychological content and could be a useful component of one's concentration in Psychology. These courses are automatically approved but require students to designate them for Non-departmental Advanced Course concentration credit by emailing psychology@wjh.harvard.edu by the appropriate deadline. These courses vary each year; a current list and relevant deadlines are available on the concentration website.
    4. *Advanced Course Requirement*, Limits on lab-based courses: Students may count up to two lab-based courses (any combination of Psychology 910r, Lab Courses, or Psychology 985) toward the Advanced Course requirement. Additional research courses may be taken for College elective credit. Students may enroll in Psychology 910r up to a total of three times for any combination of concentration credit and college credit.
    5. *Graded Course Requirement*: All courses taken for concentration credit must be letter-graded. The only exceptions are Psychology 985 and the specific Freshman Seminars designated on the departmental Advanced Course list.
    6. *Undergraduate Teacher Education Program*: Concentrators may be eligible to obtain certification to teach middle or secondary school in Massachusetts and states with which Massachusetts has reciprocity. See the Undergraduate Teacher Education Program (UTEP) website for more information.

**Requirements for Honors Eligibility**
**Non-Thesis Option: 12 courses (48 credits)**

1. *Required courses*: Same as **Basic Requirements**.
2. *Tutorial*: Same as **Basic Requirements**.
3. *Thesis*: None.
4. *General Examination*: None.
5. *Other information*: Same as **Basic Requirements**, plus the following:
    1. *Minimum Concentration GPA*: Students must have a minimum concentration GPA of 3.85. Concentration grade point averages are calculated from a student's best twelve courses that meet the requirements (e.g., Introductory Courses, Foundational Courses, Research Methods and Statistics, and Advanced Courses), including final semester grades.
    2. *Admissions Requirement*: No application or notification to the department is required. Students who meet the requirements as listed in 1-5A above at the end of their final semester will receive an Honors recommendation. (See item 5C.)
    3. *Determination of Departmental Honors*: A degree recommendation of Honors will be awarded to students who meet these requirements. Students who appear eligible for Honors will receive an award letter from the department prior to graduation.

**Thesis Option: 14 courses (56 credits)**

1. *Required courses:*
    1. *Introductory Courses*: Same as **Basic Requirements.**
    2. *Sophomore Tutorial*: Same as **Basic Requirements**.
    3. *Statistics*: Same as **Basic Requirements**.
    4. *Foundational Courses*: Same as **Basic Requirements**.
    5. *Research Methods*: Thesis students must complete two courses, both letter graded:
        1. Psychology 1901, required by end of sophomore year, and
        2. Lab Course from list on the department's website, required by end of junior year. (See item 5B.)
    6. *Advanced Courses*: Five courses. All letter-graded. (See item 5A of Basic Requirements and item 5B below.)
    7. Psychology 991a and Psychology 991b, Senior Tutorial, year-long 8-credit course. Graded SAT/UNS. (See item 2C.)
2. *Tutorials*:
    1. *Sophomore Tutorial*: Same as **Basic Requirements**.
    2. *Junior Tutorial*: Honors Thesis Preparation (Psychology 985): Optional but strongly recommended one-term tutorial consisting of individual reading and research leading to a thesis prospectus, under the supervision of a departmental faculty member, supplemented by occasional required group meetings. Graded SAT/UNS. Prospectus or paper required. Application must be made to the Psychology Undergraduate Office prior to enrolling in courses. (See also item 5C.)
    3. *Senior Tutorial*: The Honors Thesis (Psychology 991a and 991b): Year-long 8-credit individual tutorial consisting of research leading to submission of the thesis, supplemented by required spring poster session and occasional, required group meetings. Graded SAT/UNS.
3. *Thesis*: Required. A thesis application is normally due in March of the junior year, but preparation for this application begins in the fall of the junior year. To apply to the thesis program, students must have completed Research Methods and Statistics. A thesis prospectus is due in April of the junior year, and a prospectus meeting giving thesis committee approval of the prospectus is normally required no later than October of the senior year. The completed thesis is due the Thursday before spring recess of the senior year. Required poster session and defense occur during spring of senior year.
4. *General Examination*: None.
5. *Other information:*
    1. *Counting Non-departmental Courses toward the Advanced Course Requirement*: Same as item 5A in Basic Requirements.
    2. *Advanced Course Requirement, Research Courses*: Students may count one additional Research Course (Psychology 910r, Psychology 985, or a Lab Course) toward concentration requirements in partial fulfillment of the Advanced Course requirement. Additional research courses may be taken for College elective credit; students may enroll in Psychology 910r up to a total of three times for any combination of concentration and college credit.
    3. *Graded Course Requirement*: All concentration courses except Psychology 985, Psychology 991a and 991b, and the specific Freshman Seminars designated on the departmental Advanced Course list must be letter-graded.

4. *Admissions Requirement*: A thesis application is required, normally in March of the junior year. To apply to the thesis program, students must have completed Research Methods and Statistics and ordinarily must have a 3.5 College grade point average.
5. *Determination of Departmental Honors*: Honors degree recommendations are normally determined by a combination of the concentration grade point average and the thesis evaluation. Departmental recommendations can range from No Honors to Highest Honors under this option.
6. *Joint Concentrations*: Ordinarily, the Psychology department does not participate in joint concentrations.
7. *Undergraduate Teacher Education Program*: See item 5F of Basic Requirements.

**Cognitive Science Track**
**Requirements: 14 courses (56 credits)**
The Cognitive Science track is affiliated with the University-wide Mind/Brain/Behavior (MBB) Interfaculty Initiative, and is administered through the Psychology Undergraduate Office. An application and thesis are required. MBB tracks are also available in Computer Science, History and Science, Human Evolutionary Biology, Linguistics, Neurobiology, and Philosophy.

1. *Required courses:*
    1. *Introductory Course*: Psychology 1: Introduction to Psychological Science (formerly Science of Living Systems 20), one course, recommended during the first year and required by the end of the sophomore year, or an approved substitute (see below). Letter-graded.
        1. PSYC S-1, offered in the Harvard Summer School.
        2. A Psychology AP score of 5 or IB score of 7, in which case an extra advanced course will be required.
    2. *Sophomore Tutorial*: Psychology 971, one course, required by end of sophomore year. Letter-graded.
    3. *Statistics*: Psychology 1900, one course, required by end of junior year. Must be passed with a grade of C- or higher.
    4. *Foundational Courses*: One course from Neuroscience 80 (formerly Molecular and Cellular Biology 80) or Molecular and Cellular Biology 81, sophomore year, and one other course from Psychology 14, 15, 16, 18; or Science of Living Systems 15 recommended by end of sophomore year. Letter-graded.
    5. *Seminar in Mind/Brain/Behavior*: one course, junior year. Letter-graded. Select one from a list that varies each year.
    6. *Research Methods*: Thesis students must complete two courses, both letter graded:
        1. Psychology 1901, required by end of sophomore year, and
        2. Lab Course from list on the department's website, required by end of junior year.
    7. *MBB Track Advanced Courses*: Four courses. Letter-graded. See item 5B.
    8. *Senior Tutorial*: Psychology 991a and 991b, full course, senior year. Graded SAT/UNS. See item 5A.
2. *Tutorials*: Same as **Psychology General Track Requirements for Honors Eligibility: Thesis Option**.
3. *Thesis*: Required. Same as **Psychology General Track Requirements for Honors Eligibility: Thesis Option**.
4. *General Examination*: None.
5. *Other information:*
    1. *Senior Tutorial*: Psychology 991 requires participation in the Psychology spring poster session, MBB thesis activities, and attendance at group meetings of Psychology 991a and 991b.
    2. *Advanced Courses*: Advanced Courses are selected in consultation with a concentration adviser and faculty adviser of the MBB program, and may include Non-departmental Courses by petition. Ordinarily at least one of these Advanced Courses should come from one of the other MBB areas. Course selection will be reviewed and approved by the MBB Head Tutor in Psychology. Students typically do not count additional Research Courses toward track Advanced Course requirements. Additional Research Courses may be taken for College elective credit; students may enroll in 910r up to a total of three times for any combination of concentration and college credit.
    3. *Admission Requirements*: Admission to the track is by application. To apply to the track, students must have a 3.5 College grade point average at the time of application. We recommend that students apply as soon as they are reasonably certain they want to be in the

track to ensure that their coursework is appropriate for the track. Applications must be submitted no later than November 1 of the first semester of junior year.

4. *Graded Course Requirement*: All concentration courses except Psychology 985, Psychology 991a and 991b, and the specific Freshman Seminars designated on the departmental Advanced Course list must be letter-graded.

**Cognitive Neuroscience and Evolutionary Psychology Track**
**Basic Requirements: 12 courses (48 credits)**
**Requirements for Honors Eligibility: Non-thesis Option: 12 courses (48 credits)**
**Requirements for Honors Eligibility: Thesis Option: 14 courses (56 credits)**
Cognitive Neuroscience and Evolutionary Psychology is a specialized track within the Psychology concentration and part of the Life Sciences cluster of concentration options. As such, it is one of the major paths toward bridging the social and life sciences at Harvard. The track reflects the increasingly interdisciplinary nature of learning and research in psychology, emphasizing integration across the sub-disciplines within psychology (social psychology, cognitive psychology, development, psychopathology) as well as connections between psychology and the other life sciences. Students in this track have the opportunity to study the interplay between traditional interests in psychology such as vision, memory, language, emotion, intergroup relations, cooperation, and psychological disorders, and recent developments in neuroscience and evolutionary science.
To support this learning, the track will provide a strong foundation of basic knowledge in psychology and the life sciences, as well as analytical, quantitative, and research skills scientists in these areas employ. Students will also take more advanced courses in social and cognitive neuroscience and/or evolutionary psychology, and can choose to work in a faculty lab. A thesis option is available for students with strong interests in the research component of the program.

1. *Required courses:*
    1. *Introductory Course*: Psychology 1: Introduction to Psychological Science (formerly Science of Living Systems 20), one course, recommended during the first year and required by the end of the sophomore year, or an approved substitute (see below). Letter-graded.
        1. PSYC S-1, offered in the Harvard Summer School.
        2. *Note*: It may be possible to substitute a Psychology AP score of 5 or IB score of 7, in which case an extra advanced course will be required. Please contact the Psychology Undergraduate Office at psychology@wjh.harvard.edu to learn more
    2. *Sophomore Tutorial*: Psychology 975, one course, required by end of sophomore year. Examines issues and phenomena addressed in contemporary psychological and life science research from a variety of perspectives. Letter-graded.
    3. *Statistics*: Psychology 1900, one course, required by end of junior year. Must be passed with a grade of C- or higher.
    4. *Foundational Courses*: One course from either Neuroscience 80 (formerly Molecular and Cellular Biology 80)*, Molecular and Cellular Biology 81* or Psychology 14*, and one other course from Psychology 15, 16, 18 or Science of Living Systems 15**, recommended by end of sophomore year. Letter-graded. *Students interested in neurobiology coursework or neuroscience graduate school are encouraged to take Neuroscience 80 (formerly Molecular and Cellular Biology 80) or Molecular and Cellular Biology 81 to meet this requirement. **Although it is not advisable due to the overlap in content, students can take both Psychology 14 and one of Neuroscience 80 (formerly Molecular and Cellular Biology 80) or Molecular and Cellular Biology 81 to meet the Foundational Course requirement of 2 courses.
    5. *Life Sciences Courses* (Related to Cognitive Neuroscience and Evolutionary Psychology): Three courses selected from a list on the concentration website. One of these courses must be either Life and Physical Sciences A, Life Sciences 1a, Life Sciences 1b, or Life Sciences 50a. Letter-graded.
    6. *Research Methods*: Psychology 1901, one course, required by end of sophomore year. Letter graded. (Prior to Fall 2020, Psychology 1901 or one Lab Course selected from a list on the concentration's website. If returning from leave, please consult with the Psychology Undergraduate Office).
    7. *Psychology Advanced Courses*: Three courses, all letter-graded. Only one approved Non-departmental Course can be used toward this requirement. (See item 2A.)
2. *Other Information:*
    1. *Advanced Course Requirement*, Limits on lab-based courses: Students may count up to two lab-based courses (any combination of Psychology 910r, Lab Courses, or Psychology 985)

toward the Advanced Course requirement. Additional research courses may be taken for College elective credit. Students may enroll in Psychology 910r up to a total of three times for any combination of concentration credit and college credit.

3. *For Honors Eligibility:*
    1. *Non-thesis option*: Same as **Cognitive Neuroscience and Evolutionary Psychology Basic Requirements**, plus the following:
        1. *Determination of Departmental Honors*: A degree recommendation of Honors will be awarded to students who meet these requirements. Students who appear eligible for Honors will receive an award letter from the Department prior to graduation.
        2. *Admissions Requirement*: No application or notification to the department is required. Students who meet the requirements as listed in 3A.1 above at the end of their final semester will receive an Honors recommendation (see below).
        3. *Minimum Concentration GPA*: Students must have a minimum concentration GPA of 3.85. Concentration grade-point averages are calculated from a student's best twelve courses that meet the requirements (e.g., Introductory Course, Foundational Courses, Research Methods and Statistics, Advanced Courses), including final semester grades.
    2. *Thesis option*: 14 courses (56 credits). 1A-E same as Cognitive Neuroscience and Evolutionary Psychology Basic Requirements plus the following:
        1. *Determination of Departmental Honors*: Honors degree recommendations are normally determined by a combination of the concentration grade point average and the thesis evaluation. Departmental recommendations can range from No Honors to Highest Honors under this option.
        2. *Admissions Requirement:* A thesis application is required, normally in March of the junior year. To apply to the thesis program, students must have completed Research Methods and Statistics and ordinarily have at least a 3.5 College grade point average.
        3. *Thesis*: See item 5.
        4. *Senior Tutorial*: Psychology 991a and 991b, year-long 8-credit course, senior year. Graded SAT/UNS. See item 4C.
        5. *Advanced Course Requirement, Research Courses*: Students may count one additional Research Course (Psychology 910r, Psychology 985, or a Lab Course) toward concentration requirements in partial fulfillment of the Advanced Course requirement. Additional Research Courses may be taken for College elective credit; students may enroll in Psychology 910r up to a total of three times for any combination of concentration and college credit.
        6. *Psychology Advanced Courses*: Two courses, letter-graded. Only one approved Non-Departmental course can be used toward this requirement.
        7. *Research Methods*: Thesis students must complete two courses, both letter graded:
            1. Psychology 1901, required by end of sophomore year, and
            2. Lab Course from list on the department's website, required by end of junior year.
4. *Tutorials*:
    1. *Sophomore Tutorial* (Psychology 975): See Required courses, item 1B for description.
    2. *Junior Tutorial*: Preparation for the Honors Thesis (Psychology 985): Optional (but strongly recommended for students considering writing a thesis) course tutorial consisting of individual reading and research leading to a thesis prospectus, supplemented by occasional required group meetings. Graded SAT/UNS. Prospectus or paper required. Application must be made to the Psychology Undergraduate Office prior to enrolling in courses.
    3. *Senior Tutorial*: The Honors Thesis (Psychology 991a and 991b): Required of students completing the honors thesis option. Year-long 8-credit individual tutorial consisting of research leading to submission of the thesis, supplemented by required spring poster session and occasional group meetings in conjunction with PSY 991. Graded SAT/UNS.
5. *Thesis*: Required for honors eligibility if completing the thesis option. An adviser-approved thesis application is normally due in March of the junior year, but preparation for this application begins in the fall of the junior year. To apply to the thesis program, students must have completed Research Methods and Statistics. A thesis prospectus is due in April of the junior year, and a prospectus meeting giving thesis committee approval of the prospectus is normally required no later than October of the senior year. The completed thesis is due the Thursday before spring recess of the senior year. Required poster session and defense occur during spring of senior year.
6. *General Examination:* None.

**ADVISING**

The Department of Psychology offers numerous opportunities for students to obtain advice about the field and concentration. The first stop for information should be the undergraduate website, which is a comprehensive collection of requirements, departmental policies, and advice about navigating through the concentration. House-based concentration advisers are available to students throughout the academic year (see list of concentration advisers by house.) Concentration advising includes discussing concentration requirements, signing Crimson Carts and Plans of Study, helping plan future courses, discussing research opportunities, considering possible career options, and answering other related questions students may have. Students may also get advice and information throughout the year from program staff in the Psychology Undergraduate Office, William James Hall 218. Students may email brief questions to psychology@wjh.harvard.edu.
Pre-concentrators should read the Advising and Requirements sections of the undergraduate website (links to those sections are on the home page). Posted pre-concentration drop-in advising hours can also be found online. Students can also email psychology@wjh.harvard.edu or stop by the Psychology Undergraduate Office with questions.

**RESOURCES**
The Department of Psychology is situated in William James Hall, at the corner of Kirkland Street and Divinity Avenue. Copying machines are available in the basement of the building. Special facilities exist for individual interviews; group studies; observation of infants and children; and for work in the areas of vision and perception, and neuroscience. These laboratories are directed by individual faculty members and access is arranged through them.

The Psychology Undergraduate Office is located on the second floor of William James Hall (Rooms 218–222) and students can come by during business hours or make an appointment. Students are welcome to come here for general information about the concentration and related matters.
The Psychology undergraduate website includes information on concentration requirements, prizes, awards, and volunteer and job opportunities.

The Department of Psychology has long been committed to active student involvement in departmental activities. Each year, several concentrators serve as student representatives to the departmental Committee on Undergraduate Instruction (CUI). The CUI considers a wide variety of policy matters, and student participation in its deliberations allows concentrators to help plan and review aspects of the undergraduate curriculum and programs.

**HOW TO FIND OUT MORE**
The Psychology concentration has an extensive website that includes information about basic and honors concentration requirements and the Psychology General, Cognitive Science (MBB), and Cognitive Neuroscience and Evolutionary Psychology (Life Science) tracks. The website contains information about departmental research opportunities, potential non-departmental thesis advisers, course petitions, and other forms. You can also contact the Undergraduate Office at psychology@wjh.harvard.edu or 617-495-3712.

**ENROLLMENT STATISTICS**
**Number of Concentrators as of December**

| Concentrators | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Psychology | 288 | 284 | 294 | 282 | 275 | 281 | 296 | 270 | 255 | 249 | 246 | 234 |
| *Psychology + another field | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| *Another field + Psychology | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

*Ordinarily, Psychology does not participate in joint concentrations.

# Comparative Study of Religion

**Professor Courtney Bickel Lamberth, Director of Undergraduate Studies**

The concentration in the Comparative Study of Religion at Harvard invites students to explore the most consequential and momentous questions relevant to the understanding of individual and communal human life. Concentrators consider topics such as the significance of ritual and practic ; differing conceptions of human nature and the nature of the divine; and comparative study of how people understand the meaning of life, suffering and death. Our program is unique in allowing students to ponder these and other "big" questions in rigorous and critical ways.

The Study of Religion as an academic field draws upon social scientific and humanistic methods to interpret religious phenomena worldwide. Scholars of religion use a range of tools: historical methods to think about how religions change over time; comparative methods to analyze rituals or texts in different religions; anthropological methods to study how religion shapes human cultures and societies; and literary-critical methods to interpret and understand religion texts. It is a diverse, creative field in which scholars talk across disciplinary boundaries. Due to this interdisciplinary approach, the concentration attracts creative, versatile students willing to learn different ways of thinking about and interpreting human life, community and culture.

Students studying religious traditions focus on sacred texts, rituals and symbols; philosophy and theology; and the history and lived experience of participants in the traditions. The program stresses the acquisition of certain skills: (1) the arts of reading and interpreting texts, practices and societies; (2) clear writing (essays are a substantial part of the requirements of the sophomore and junior tutorials); and (3) the knowledge of the fundamental literature on theories of religion, and on the various methods of the study. Competency in religious studies indicates the ability to think critically and with historical and cultural learning about the complicated place of religious history, imagination, motivation, and memory in national and international affairs. Such skills have become one marker of an educated person, who is appropriately prepared for the responsibilities and pleasures of democratic citizenship and leadership.

Concentrators draw up an individual concentration plan of study under the supervision of the Director of Undergraduate Studies, their concentration adviser, at times also in consultation with appropriate members of the Committee on the Study of Religion. There are four options for the concentration: (A) a focus on two religious traditions (or one tradition and one thematic focus); (B) a focus on a single tradition in a comparative context; (C) a joint concentration with religion as the primary field of study, and (D) a joint concentration with another field as the primary field of study. All four programs require general, methodological, or comparative courses outside of the major religious tradition(s) being studied. These courses provide analytical tools and knowledge of other traditions that enable students to think with comparative and theoretical imagination about diverse religious phenomena. Concentration credit for study abroad is possible in consultation with the Director of Undergraduate Studies.

**CONCENTRATION OPTIONS**

1. *Two religious traditions/geographical areas; or one tradition/geographical area with a particular approach to the study of religion.*
2. *One religious tradition or geographical area in comparative context.*
3. *Joint concentration with religion as the primary field.*
4. *Joint concentration with religion as the allied field.*

**REQUIREMENTS**
**Non-honors track: 12 courses (48 credits) / Honors track: 14 courses (56 credits)**

1. *Required courses*: These vary with the option chosen, as detailed below under each of the four options. All plans of study are tailored to individual student interests, in consultation with concentration advisers.
2. *Tutorials*: The tutorial program under each option is integrated closely into the student's plan of study as detailed below. In Options A, B, and C the required tutorial courses are as follows:
    1. *Sophomore year*: Religion 97, tutorial seminar (one term), required. Letter-graded.
    2. *Junior year*: Religion 98r, an individual or small-group tutorial, required. Letter-graded.
3. *Honors Candidates*:
    1. *Thesis*: To be eligible to write a thesis, a student must maintain a minimum GPA average of B+ in the concentration through the first term of the junior year.
    2. *Senior Seminar*: Religion 99a and 99b (two terms), required only of students writing a thesis.

Graded SAT/UNS.

4. *Other Information*:
    1. *Traditions*: The "tradition" can be either a major religious tradition, (such as Judaism, Christianity, or Islam) or an historical complex, such as East Asia. The traditions listed are those for which there are ordinarily sufficient course offerings at Harvard. Other traditions may be possible, depending upon the availability of faculty and course offerings. The option of incorporating a particular approach into the plan of study allows students to focus their work on a closely affiliated discipline.
        - Ancient Near Eastern and Israelite
        - Buddhism
        - Christianity
        - East Asian Religions
        - Greek, Hellenistic, and Roman Religions
        - Hinduism
        - Islam
        - Judaism
        - Modern West and Religions of the Americas
        - South Asian Religions
    2. *Interdisciplinary Approaches*:
        - Philosophy of Religion
        - Religion and Social Science
        - Religion, Race, and Gender
        - Religion, Literature and the Arts (e.g., music, fine arts, creative writing)
        - Religion and Science
    3. *Language Instruction*: In the evaluation of an honors thesis, the student's ability to demonstrate an awareness of primary texts in their original language, when such considerations are relevant to the development of the thesis project, is ordinarily a consideration. Honors candidates are thus advised to study the language(s) they will need to interpret texts from the tradition(s) they choose. In general, students may count language courses towards concentration credit when the primary texts they are reading in the course are either from a religious tradition or relevant to the study of a religious tradition, beginning with the second year of a given language track.
    4. *Pass/Fail*: In addition to Religion 99a and 99b (see above), one additional course taken Pass/Fail or Sat/Unsat at Harvard can be counted for concentration credit. A relevant Freshman Seminar may therefore be counted for concentration credit, pending approval by the Director of Undergraduate Studies. Consult with the Director of Undergraduate Studies regarding Pass/Fail credit for courses taken abroad.
    5. *Joint Concentration*: The Comparative Study of Religion may be combined with another field in the overall framework of a joint concentration. Ordinarily, students wishing to combine Religion as the primary field will do so in the context of Option C. Students interested in a joint concentration involving Religion should consult the Director of Undergraduate Studies.

**Option A: Two religious traditions/geographical areas;** or
one tradition/geographical area and a particular approach

1. *General: Comparative and Methodological Studies:* three courses.
    1. One comparative course. Comparative courses vary from term to term, so consult the DUS for yearly options.
    2. Religion 97 (one term).
    3. One other course outside the student's major tradition or geographical area.
2. *Major Tradition or Geographical Area*: Five courses.
    1. Four courses focusing on a particular era or cultural/geographical area important in the tradition.
    2. Religion 98r (one term).
3. *Second Tradition or Approach*: Four courses focusing on a particular era or cultural/geographical area, or four courses in a particular interdisciplinary approach (see above).
4. *For Honors Candidates*: Religion 99a and 99b.

**Option B: One religious tradition/geographical area** (in comparative context)

1. *General: Comparative and Methodological Studies*: four courses (16 credits).
    1. One comparative course. Comparative courses vary from term to term, so consult the DUS for yearly options.
    2. Religion 97 (one term).
    3. Two other courses ordinarily in a tradition and/or geographical area other than the major one.
2. *Major Tradition*: Eeight courses (32 credits).
    1. Seven courses, of which normally three focus on a particular era or cultural geographical area important in the tradition.
    2. Religion 98r (one term).
3. *For Honors Candidates*: Religion 99a and 99b.

**Option C: Joint Concentration with Religion as Primary Field**

1. *General*: *Comparative and Methodological* Studies: three courses (12 credits).
    1. One comparative course. Comparative courses vary from term to term. Consult the DUS for yearly options
    2. Religion 97 (one term).
    3. Two courses outside of the student's Major Tradition or geographical area.
2. *Major Tradition*: Five courses.
    1. Four courses focusing on a particular era or cultural/geographical area important in the tradition. For thesis writers, one of these courses will be Religion 99a.
    2. Religion 98r (one term).
3. *Allied Field*: At least four courses. As all joint concentrators must write a senior thesis, one of these courses will typically be Religion 99b, although in some instances, a senior tutorial in the other field may be substituted for Religion 99b or combined with it. One term of junior tutorial in the other field is often required. Precise course requirements are subject to concentration requirements of the department or committee that administers the program in the other field.

**Option D: Joint Concentration with Religion as Allied Field**
**7 courses (28 credits)**

1. *General: Comparative and Methodological Studies*: three courses
    1. Religion 97 (one term).
    2. Two other courses, at least one of which is outside the Major Tradition.
2. *Major Tradition*: Four courses (16 credits) focusing on a religious tradition or geographical area. Religion 98r is strongly recommended, though not required.

**ADVISING**
Each student is assigned a Concentration Adviser who will meet with the student at the beginning of each term to discuss the concentration plan. In most cases the Concentration Adviser will also serve as the special field adviser who counsels the student on issues related to the major tradition(s). When these two advisers are not the same, a special field adviser will be appointed in addition to the concentration adviser.

For up-to-date information on advising in the concentration please see the Advising Programs Office website.

**RESOURCES**
Faculty members from a range of Faculty of Arts and Sciences departments and from the Harvard Divinity School share in the teaching and administration of the concentration. For study resources concentrators draw not only upon the collections at Widener Library, the Harvard Art Museums, and the undergraduate libraries, but also upon the Andover-Harvard Library and area studies libraries, such as the Harvard-Yenching and Tozzer libraries.

**HOW TO FIND OUT MORE**
The Handbook for Concentrators and names of current concentrators willing to discuss the program are available at the office of the Study of Religion, 302 Barker Center. For more information, contact the Director of Undergraduate Studies, Courtney Bickel Lamberth.

**ENROLLMENT STATISTICS**

**Number of Concentrators as of December**

| Concentrators | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Comparative Study of Religion | 34 | 30 | 29 | 23 | 20 | 13 | 12 | 16 | 19 | 17 | 14 | 13 |
| Comparative Study of Religion + another field | 1 | 3 | 2 | 3 | 2 | 1 | 2 | 1 | 2 | 2 | 4 | 7 |
| Another field + Comparative Study of Religion | 3 | 3 | 2 | 3 | 4 | 6 | 5 | 5 | 3 | 3 | 6 | 5 |

# Romance Languages and Literatures

**Kathy Richman, Director of Undergraduate Studies**
**Cathy Downey, Undergraduate Coordinator**

In the Department of Romance Languages and Literatures (RLL), undergraduates discover the literatures, cultures, and critical approaches of societies worldwide where French, Italian, Portuguese, Spanish, and Catalan are spoken. RLL offers language courses from the beginning to advanced levels, as well as opportunities for accelerated work and study abroad. The heart of the concentration consists of courses about literature and society taught in French, Italian, Portuguese, and Spanish. Faculty also offer advanced courses in English on special topics that involve more than one language tradition. These are listed as Romance Studies and count toward the concentration

Courses in RLL invite undergraduates to engage deeply and critically with all kinds of texts and questions – from Don Quixote to the legacies of colonialism and the politics of post-war Europe – in a language other than English. Students develop an understanding of the ways in which rhetorical devices like metaphor and hyperbole make cultural artifacts – from everyday materials to works of art – richer, more complex, and more demanding of in-depth analysis. RLL offers a challenging and supportive environment in which students can strengthen their capacity to interact in meaningful ways with people in dozens of countries in Africa, the Americas, Asia, and Europe. Students in RLL develop skills in analysis, critical thinking, and communication that prepare them to act as informed and sophisticated global citizens.

Undergraduates who arrive at Harvard with advanced language skills take courses that provide a panoramic introduction to the literature, film, and culture of different regions and eras, all taught in the original Romance language. They continue with more specialized courses on specific topics or movements. Students with some foundation in a Romance language enroll in the appropriate intermediate course in language and culture, where they focus on perfecting communication skills and cultural understanding in preparation for the advanced courses described above. Many undergraduates begin a new language at Harvard, and some go on to complete the concentration or a secondary field in RLL.

At all levels of courses in French, Italian, Portuguese, Spanish, and Catalan, students learn to communicate accurately and effectively. Equally importantly, they become more attuned listeners. As they develop an understanding of how people in different communities in the Romance-speaking world conceive of artistic, social, ethical, and political issues, their own sense of self evolves. In RLL, undergraduates achieve the cultural and linguistic fluency so crucial in today's globalized world.

RLL offers summer programs taught by our own faculty in Paris, Buenos Aires, Madrid, Milan/Siena, and Santiago de Chile. Students enjoy intensive, in-depth, location-specific curricula while earning credits that count as two term-time Harvard courses. Many find these programs to be an enriching and useful component of completing the concentration.

Concentrators in RLL work closely with faculty to develop and carry out research projects. Senior theses and independent studies address a wide range of topics, including: evolving images of the Basques in Spanish popular culture; self-representation and political struggles of Chinese immigrants in Mexico; political and social constructions in Italy's American country music scene; cultural differences in the

education policies of French, Spanish, and Arabic schools in Morocco; communication strategies for Zika prevention in Brazil; reading autofiction in Borges and Barthes through the lens of social media; and ambiguities in medicine and fiction in 20th-century Latin America.

*An undergraduate degree in RLL prepares students for work in the following areas, among others:*

**Medicine** – internships and residencies abroad; international medical humanitarian organizations; public health in the U.S. and overseas
**Arts** – museum curation; filmmaking; publishing; journalism; fiction and other creative writing
**Law** – foreign service and diplomacy; human rights organizations; U.S. firms based abroad; and international firms in the U.S.
**Teaching and Scholarship** – 1-year assistantships in France, Spain, and Italy; bilingual and secondary schools; graduate programs leading to careers in teaching and research at colleges and universities
**Business and Public Administration** – consulting; international banking and investment firms; non-governmental organizations; foundations; advertising; import/export of specialty foods and wine.

**CONCENTRATING IN ROMANCE LANGUAGES AND LITERATURES**
A student concentrating in RLL will choose one of five Special Fields as the focus for work in the concentration, as follows:

- French and Francophone Studies
- Italian Studies
- Portuguese and Brazilian Studies
- Spanish, Latin American and Latino Studies
- Romance Studies (study of 2 or more Romance languages and literatures)

Concentrators begin either with courses in language and culture or place directly into seminars in literature, film, and culture and society in their chosen Special Field. (General requirements are outlined below.) In consultation with the Special Field Adviser and the Director of Undergraduate Studies (DUS), concentrators develop and submit a Plan of Study that reflects both the scope of the special field and their individual interests and goals.

**CONCENTRATION REQUIREMENTS**
**Basic Requirements: 12 courses (48 credits)**
For a simple, graphic version of requirements, please see worksheets available for each RLL field at https://rll.fas.harvard.edu/pages/concentrations.

1. *Required courses:*
    1. *Category A*. Language and Culture courses: Two courses at the 40, 50, or 60 level. A maximum of two courses at this level may be counted toward the concentration requirement. A student who places out of category A must replace the two required courses with courses in categories B, D or E, or approved Gateway courses. See 5.g below, for information about concentration language requirement.
    2. *Category B*. Literature, film, and culture and society: Two courses at the 70 level.
    3. *Category C*. Sophomore Tutorial: Romance Studies 97.
    4. *Category D*. Four courses taught in Romance Languages and Literatures at levels 70, 80,100, and 200. At least three of these courses must be taught in the special field language, and at least two must be at the 100 level or above.
    5. *Two courses in related fields*. A maximum of two courses in related fields may be counted toward the concentration requirement. In consultation with the Faculty Adviser and the DUS, students choose courses related to the study of Romance languages and literatures from such fields as Anthropology, Classics, Comparative Literature, Economics, Government, History, History of Art and Architecture, History of Science, Linguistics, Music, Philosophy, Psychology; Sociology; Women, Gender and Sexuality; and Visual and Environmental Studies, among others.
    6. *One elective course* to be chosen from the categories above or as approved by the concentration adviser and DUS in accordance with the rules stipulated below in “Other information.”
2. *Tutorial* (letter graded):
    1. *Sophomore Tutorial*: Romance Studies 97. See item 1.C above.
3. *Thesis*: Optional (see below)

4. *Other information:*
    1. *Gateway courses*: one General Education course and one Freshman Seminar may, on approval from the DUS, receive concentration credit in categories B, D, E and F.
    2. *Study Abroad*: Though not a requirement, study abroad, during the summer and/or the academic year is strongly encouraged. Summer courses taught in a Romance language may be approved for up to two courses of concentration credit. RLL faculty offer summer courses that automatically count as 8 Harvard credits. Term-time study abroad courses are eligible for a maximum of three courses for one semester (12 credits), or six courses for a full year (24 credits). The department works closely with the Office of International Education to recommend particular programs based on each student's specific needs and academic and cultural interests.
    3. At least one course in category B or D should deal with literature and culture before 1800.
    4. *Residence requirement*: RLL concentrators must take a minimum of six courses counted for the concentration in residence; honors concentrators must take a minimum of eight concentration courses in residence.
    5. *Pass/Fail*: Courses taken for concentration credit may not be taken Pass/Fail (with the exception of an approved Freshman Seminar).
    6. The Faculty Adviser and the DUS may approve substitutions of work not specifically listed above.
    7. *Concentration language requirement:* By the end of the junior year, concentrators are expected to demonstrate advanced oral and written proficiency in one Romance Language (two for Romance Studies concentrators). Advanced proficiency may be demonstrated by a score of 780 or above on the SATII or on the Harvard Placement Test, or by completion of a course at the 50-level or above with a grade of B or higher.

**Requirements for Honors Track with Thesis: 14 courses (56 credits):**

1. *Required courses*. Same as **Basic Requirements**. Plus:
    1. *Junior Essay*: Students must complete a Junior Essay as part of their written work for a 100- or 200-level course offered in RLL.
2. *Tutorials* (letter graded): same as **Basic Requirements** plus Senior Tutorial: French, Italian, Portuguese, Spanish or Romance Studies 99a and 99b, and successful completion of the thesis.
3. *Thesis*: Required
4. *Senior Honors Oral Examination*: Required.
5. *Other information*:
    1. Same as **Basic Requirements**
    2. *Residence requirement*: Honors concentrators must take a minimum of eight concentration courses in residence.

**Requirements for Honors Track, Non-Thesis: 14 courses (56 credits):**

1. *Required courses.* same as **Basic Requirements**.
    1. *Two additional courses*: Two courses at the 100-level or above, completed with grade of A or A-.
2. *Tutorials* (letter graded): same as **Basic Requirements**
3. *Thesis*: None
4. *Oral Examination*: None
5. *Other information:*
    1. Same as **Basic Requirements**
    2. *Residence requirement*: Honors concentrators must take a minimum of eight concentration courses in residence.

**Honors eligibility**: Concentrators with a minimum concentration GPA of 3.45 are eligible to participate in the honors program.

- N.B. Students who take two additional courses at the 100-level, or one additional course at the 100-level and one additional course at the 200-level, with a minimum grade of A- in each, can be recommended for a departmental degree of Honors (but not High or Highest Honors). Students who take two additional courses at the 200-level with a minimum grade of A- in each can be recommended for a departmental degree of Honors or High Honors (but not Highest Honors). To be considered for Highest Honors, students must pursue the Thesis Option.

**Joint Concentration: Romance Languages and Literatures as primary field: 8 courses (32 credits)**

1. *Required Courses:*
    1. *Language and Culture courses*: One course at the 40, 50, or 60 level. See notes in **Basic requirements** for information about placement and substitution.
    2. *Literature, Film, and Culture and Society*: One course in introductory field survey at the 70 level.
    3. *Sophomore Tutorial*: Romance Studies 97.
    4. Three courses taught in Romance Languages and Literatures at the 70 level or above. At least one of these must include a 100- or 200-level course or an independent tutorial that culminates in a Junior Essay.
2. *Tutorials*
    1. *Sophomore Year*: Romance Studies 97. See item 1.C above.
    2. *Junior Year*: Junior Essay. See item 1.D above
    3. *Senior Year:* French, Italian, Portuguese, Spanish or Romance Studies 99a and 99b (two terms) and successful completion of the thesis.
3. *Thesis*: Required.
4. *Senior Honors Oral Examination*: Required.
5. *Other Information*: Course substitutions as approved by the DUS

**Joint Concentration: Romance Languages and Literatures as allied field: 6 courses (24 credits)**

1. *Required Courses:*
    1. *Language and Culture courses*: One course at the 40, 50, or 60 level. See notes in **Basic requirements** for information about placement and substitution.
    2. *Literature, Film, and Culture and Society*: One course in introductory field survey at the 70 level.
    3. *Sophomore Tutorial*: Romance Studies 97.
    4. Three courses taught in Romance Languages and Literatures at the 70 level or above.
2. *Tutorials*
    1. *Sophomore Year*: Romance Studies 97. See item 1.C above.
3. *Thesis*: Required
4. *Oral Examination*: None.
5. *Other Information*: Course substitutions as approved by the DUS.

**ADVISING**

Close consultation with faculty is essential for planning and completing a rich and successful concentration in RLL. Concentrators are invited to meet regularly with the Director of Undergraduate Studies, Advisers in each Special Field, and the Undergraduate Coordinator.

**Director of Undergraduate Studies** Dr. Kathy Richman, Boylston 422, 617-495-1929, richman@fas.harvard.edu
**Special Field Advisers for 2020-2021**:
**French and Francophone Studies** Prof. Annabel Kim, Boylston 427, (617) 496-0486, annabel_kim@fas.harvard.edu
**Italian** Dr. Elvira Di Fabio, Boylston 435/436, (617) 496-4842. edifabio@fas.harvard.edu
**Spanish, Latin American and Latino Studies** Dr. María Luisa Parra, Boylston 326, 617-495-1868, parra@fas.harvard.edu
**Portuguese and Brazilian Studies** Dr. Viviane Gontijo, Boylston 416, 617-495-8476, vivianegontijo@fas.harvard.edu
**Romance Studies** Dr. Kathy Richman, Boylston 422, 617-495-1929, richman@fas.harvard.edu
**Language Citation Approval** Katherine Killough, Language Program Coordinator, Boylston 436, 617-495-2524, killough@fas.harvard.edu

**RESOURCES FOR RESEARCH AND INTERNSHIPS**

The combined holdings of Widener, Lamont, and Houghton libraries constitute one of the major collections of Romance literatures in the world. Other important resources available to RLL concentrators include research and internship opportunities at the Harvard Art Museums; the Harvard Film Archive; the Center for European Studies; the Lauro de Bosis Committee; Villa i Tatti: The Harvard University Center for Italian Renaissance Studies; the David Rockefeller Center for Latin American Studies; the Real Colegio Complutense at Harvard; the Office of Career Services; the Office of

International Education; and numerous other centers. RLL concentrators are encouraged to consult the Research Guide for Concentrators posted on the Department's website.

**HOW TO FIND OUT MORE**
The Department's offices are located on the fourth floor of Boylston Hall. Faculty offices may be found on the third, fourth and fifth floors of Boylston.
General Information and Support:
Contact Cathy Downey, Undergraduate Program Coordinator, Boylston 405,
617-495-1860, cdowney@fas.harvard.edu

**ENROLLMENT STATISTICS**
**Number of Concentrators as of December**

| Concentrators | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Romance Languages and Literatures | 43 | 46 | 48 | 51 | 46 | 34 | 24 | 16 | 14 | 9 | 12 | 4 |
| Romance Languages and Literatures + another field | 2 | 0 | 1 | 1 | 2 | 2 | 1 | 3 | 3 | 4 | 3 | 2 |
| Another field + Romance Languages and Literatures | 4 | 2 | 6 | 7 | 4 | 3 | 4 | 2 | 6 | 5 | 7 | 19 |

# Slavic Languages and Literatures

**Professor Aleksandra Kremer, Director of Undergraduate Studies**

The concentration in Slavic Literatures and Cultures offers you the opportunity to study the great works and cultural traditions, past and present, of Russia and the other Slavic countries, especially Ukraine, Poland, and the Czech Republic. These countries share a rich cultural life as well as a turbulent and fascinating history. In the Slavic concentration, you will develop proficiency in Russian or another Slavic language such as Czech, Polish, or Ukrainian; you will learn to read literary works in the original language, gain valuable experience for working and traveling abroad, and come to understand these cultures and the important role they have played in the modern world. The concentration requirements are five courses in Russian or another Slavic language, two courses of tutorial, one 100-level course that has a section with texts in Russian (or in another Slavic language), one survey course in Russian or another Slavic literature, two electives, and a senior project in the final year. (Native speakers and students with advanced language preparation must still take at least one language course in the department and have the option of testing out of the other four courses, which they would take in literature instead.) Study abroad, whether a summer or a semester, is strongly encouraged and easily accommodated within the concentration.

Your Slavic tutorials will give you a rigorous introduction to contemporary methodologies of reading texts and studying foreign cultures. All tutorials in the Slavic department are taught exclusively by full-time faculty. The sophomore tutorial (spring term only) will introduce you to major issues in the field of Slavic studies, including methods of interpreting literary texts as well as visual culture, and the forces structuring national and regional identities. The junior tutorial introduces students to shorter canonical texts of Slavic literature, read in the original. In order to fulfill your tutorial requirements, in your junior year you will also take one 100-level course with readings in Russian (or another Slavic language). Normally, the 100-level course is taken in the fall, the tutorial in the spring, both in the junior year, but students who study abroad or have other constraints on their schedules may work with the Director of Undergraduate Studies (DUS) to make other arrangements. Many of our concentrators combine a love of literature with a strong interest in other disciplines, and we highlight the interdisciplinary nature of Slavic studies by incorporating history, politics, and visual culture into our tutorials and other department courses. In the senior year, non-honors concentrators will design a fall-term capstone project in consultation with the DUS, allowing them to study with a faculty member from the department and write

a 25–30 page senior project. Honors candidates will work with a faculty member for the entire senior year and write a thesis. The department awards prizes for superior honors theses.

In addition to the required survey course in Russian literature, students are encouraged to use their two elective courses to explore a broad variety of subjects offered by the department, including one-author seminars on Tolstoy, Dostoevsky, Nabokov, Chekhov, and others; the interwar avant-gardes in literature, art, and film; the cultures of great European cities such as Moscow, St. Petersburg, and Prague; twentieth-century Ukrainian literature and its political contexts; the culture of Medieval Rus'; Russian women readers and writers; Russian theater and ballet; Russian and Central European film; and the traditions of Slavic intellectual history from anarchism to Communism and political dissent. Many of our courses cover aspects of Slavic critical theory (formalism, structuralism, Bakhtin, cultural semiotics), as well as other contemporary theoretical approaches to literature.

Study abroad, though not required, is strongly encouraged by the department, and the majority of our concentrators spend time abroad, typically during their junior year or in the summer after their sophomore or junior year. Slavic department faculty currently run one summer abroad program each year in Prague and Tbilisi. Many of our students also study in Russia or Central Europe with other programs such as the Bard-Smolny Program, the American Council of Teachers of Russian (ACTR), or the Council on International Educational Exchange (CIEE); entrance to these programs is competitive, but Harvard students have traditionally done well. Credit toward concentration requirements is granted to those who successfully complete such programs; in order to receive concentration credit for this or any other external study, the student must receive permission in advance from the DUS.
The department welcomes all students with an interest in Slavic languages and cultures and is happy to accept late transfers so long as the applicants have already begun language study. We also welcome joint concentrators and those interested in a secondary field in Russian Studies or Central European Studies (see below for more information). Although the undergraduate concentration will prepare you for graduate study in Slavic, comparative literature, history, and other programs, many of our students follow careers in other areas, including medicine, law, business, and government; they find that the experience of learning a language and getting to know a foreign culture greatly expands their opportunities for work and travel.

**REQUIREMENTS**
**Slavic Literatures and Cultures**
**Basic Requirements: 12 courses (48 credits)**

1. *Required Courses:*
    1. Five courses in Russian language (the first semester of Russian A may be included), or five courses in another Slavic language (Ukrainian, Polish, Czech, or Bosnian, Croatian, and Serbian (BCS); all five must be taken in the same language). Native speakers, or students with advanced language preparation, must still take at least one language course in the department, and have the option of testing out of the other four courses, which they would take in literature instead.
    2. Two semesters of tutorial (including Sophomore Tutorial) and one 100-level course that has a section with texts in Russian (or in another Slavic language). See item 2.
    3. A survey course in Slavic literature or culture: The list of courses that count for the survey requirement is updated each year on the department website.
    4. Two additional courses from the Slavic department or in related areas (see item 4).
2. *Tutorials*:
    1. *Sophomore year*: Slavic 97 (one term, spring semester) required. Letter-graded.
    2. *Junior year*: Slavic 98 (spring term) required. Letter-graded.
    3. *Junior year*: one 100-level course that has a section with texts in Russian (or in another Slavic language).
3. *Capstone Project:* The non-honors capstone project (Slavic 99a) will be a 25–30-page research paper or annotated translation, developed in consultation with the DUS and written under the guidance of a faculty adviser. Graded Sat/Unsat
4. *Other information:*
    1. The two elective courses may include any Slavic Department literature or linguistics course at the 125 level or above; Slavic-related Gen Ed courses, a Freshman Seminar or relevant courses in the Departments of Comparative Literature, Linguistics, VES, History or Government if approved by the Director of Undergraduate Studies; or an Independent Study approved by the Director of Undergraduate Studies.

2. All courses for the concentration must be letter-graded, except approved Freshman Seminars and Slavic 99a, which are graded SAT/UNS.

**Slavic Literatures and Cultures**
**Requirements for Honors Eligibility: 13 courses (52 credits)**

1. *Required Courses*: Same as **Basic Requirements**.
2. *Tutorials*: Same as **Basic Requirements**.
3. *Thesis*: Two terms (Slavic 99a and 99b) required. Graded SAT/UNS. (Progression to 99b will be contingent on satisfactory completion of 99a.)
4. *Other Information*: Same as **Basic Requirements**.

**Joint Concentration: Slavic Languages and Literatures as primary field: 11 courses (44 credits)**

1. *Required Courses:*
    1. Five semesters in Russian language (the first semester of Russian A may be included), or five semesters in another Slavic language (Ukrainian, Polish, Czech, Bosnian, Croatian, and Serbian (BCS)); all five must be taken in the same language). Native speakers, or students with advanced language preparation, must still take at least one language course in the department, and have the option of testing out of the other four courses, which they would take in literature instead.
    2. Two semesters of tutorial. (See item 2)
    3. One survey course in Slavic literature or culture: the list of courses that count for the survey requirement is listed on the department website.
    4. One additional course from the Slavic department.
2. *Tutorials*
    1. *Sophomore Year*: Slavic 97 (one term, spring semester) required. Letter-graded.
    2. *Junior Year*: Slavic 98 (spring term) required. Letter-graded.
3. *Thesis*: Two terms (Slavic 99a and 99b) required. Graded SAT/UNS. (Progression to 99b will be contingent on satisfactory completion of 99a.)

**Joint Concentration: Slavic Languages and Literatures as allied field: 8 courses (32 credits)**

1. *Required Courses:*
    1. Five semesters in Russian language (the first semester of Russian A may be included), or five semesters in another Slavic language (Ukrainian, Polish, Czech, Bosnian, Croatian, and Serbian (BCS)); all five must be taken in the same language). Native speakers, or students with advanced language preparation, must still take at least one language course in the department, and have the option of testing out of the other four courses, which they would take in literature instead.
    2. *Sophomore tutorial*: Slavic 97 (one term, spring semester) required. Letter-graded.
    3. One survey course in Slavic literature and culture. The list of courses that count for the survey requirement is listed on the department website.
    4. One additional course in the Slavic Department.
2. *Thesis*: 99A and 99B courses should be taken in your primary department. However, your thesis has to engage substantially with sources in Russian or another Slavic language. In addition to evaluation of your thesis in your primary department, one reader from the Slavic Department will be assigned to evaluate and grade your thesis.

**ADVISING**
The Director of Undergraduate Studies is responsible for advising the concentrators in all three years. Concentrators meet with the Director individually at the beginning of each term to discuss their Plans of Study and their progress through the concentration, and thereafter as desired.

For up-to-date information on advising in Slavic Languages and Literatures, please see the Advising Programs Office website.

**HOW TO FIND OUT MORE**
Consult Professor Aleksandra Kremer, Director of Undergraduate Studies, Barker Center 378, akremer@fas.harvard.edu.

**ENROLLMENT STATISTICS**

**Number of Concentrators as of December**

| Concentrators | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Slavic Languages and Literatures | 9 | 11 | 13 | 8 | 5 | 4 | 3 | 5 | 6 | 4 | 5 | 4 |
| Slavic Languages and Literatures + another field | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 |
| Another field + Slavic Languages and Literatures | 0 | 0 | 1 | 2 | 2 | 1 | 1 | 1 | 3 | 8 | 7 | 4 |

# Social Studies

**Dr. Anya Bernstein Bassett, Director of Studies**

Social Studies was founded in 1960 by a distinguished group of faculty who believed that the study of the social world requires an integration of the disciplines of history, political science, economics, sociology, and anthropology. For over five decades, Social Studies has brought together outstanding teachers and intellectually engaged students who share a fascination with social science research and theory and a deep interest in applying social science to contemporary social, economic, and political problems.

The common introduction to Social Studies is Social Studies 10, which introduces students to some of the thinkers who have durably shaped the way we understand modern society. Students examine the development of modern moral, political, and economic ideas and they consider the role of the individual in modern society, studying foundational texts by Rousseau, Smith, Marx, Weber, Durkheim, Du Bois, Beauvoir, Foucault, and Fanon. Throughout Social Studies 10, students are taught to read theoretical arguments carefully and critically and to juxtapose them against historical developments and social experience. Social Studies 10 is taught both in lecture and in small group tutorials where discussion and writing skills are emphasized.

The purpose of the junior tutorials in Social Studies is to immerse students in a detailed and focused study of an empirical, theoretical, or historical topic in the social sciences. Junior tutorials also teach social science and historical methodology, providing students with instruction on research techniques and offering them experience in conducting primary research in preparation for their senior theses.

Students develop an individualized focus field in consultation with their academic adviser. They identify an area of interest (for example: inequality, development, or modern social theory) and create a plan of study. A Social Studies plan of study includes a minimum of four courses, normally drawn from at least two social science departments and including at least one course on a historical topic. Students may petition to take social science courses taught in non-social science departments or courses offered at some of Harvard's professional schools. A student who is studying inequality might take one course in sociology, one course in economics, one course in history, and one course at the Harvard Kennedy School. A student who is studying development might take two courses in economics, one course in anthropology, and one course in history. A student of social theory might take one course in philosophy, two courses in history, and two courses in government (political theory).

In the senior year, all Social Studies concentrators enroll in a one-on-one tutorial (Social Studies 99) in preparation for researching and writing a senior thesis. This is a requirement for all concentrators.

All sophomores considering concentrating in Social Studies must take Social Studies 10a: Introduction to Social Studies, in the fall term. This course is a prerequisite for submitting a Declaration of Intent, which is due in mid-October for students who are planning to declare Social Studies as their concentration in November.

Transfer students and second-semester sophomores seeking to change concentrations can submit a Declaration of Intent to Social Studies on the first day of classes in the spring term (January 25th , 2021). If the Declaration of Intent is approved, those students may become Social Studies concentrators

immediately, but will need to wait to start Social Studies 10 in the fall of their junior year. First semester juniors can submit a Declaration of Intent by the first day of classes in the fall (September 2nd, 2020) and may also become Social Studies concentrators immediately.

**REQUIREMENTS**
**13 courses (52 credits)**

1. *Required courses:*
    1. Social Studies 10a and 10b.
    2. Social Studies 98, the junior tutorial. Students must take two junior tutorials.
    3. Social Studies 99a and Social Studies 99b (off sequence students may take two terms of Social Studies 99a or two terms of Social Studies 99b).
    4. One course in economics. This requirement can be fulfilled by taking Economics 10a and/or 10b, Economics 50, or by taking one course in economics for which Economics 10 is recommended preparation. The economics requirement must be completed by the end of the junior year.
    5. One course in elementary statistics. The statistics requirement must be completed by the end of the junior year.
    6. A course in a methodology appropriate to the focus field. This requirement may be fulfilled by taking Social Studies 50, Social Studies 60, or by taking an appropriate substitute. Students must complete this requirement by the end of the junior year.
    7. Four to six courses in the student's focus field. These courses will be selected in consultation with the student's adviser and must be approved by the Social Studies Board of Instruction. The focus field should be drawn from two social science departments and must include at least one course on a historical topic. Up to two focus field courses may be taken outside of FAS.
2. *Tutorials*:
    1. *Sophomore year*: Social Studies 10a and 10b (two terms). Letter-graded. Weekly lectures and discussion sections in groups of eight students.
    2. *Junior year*: Social Studies 98. Two terms required.
    3. *Senior year*: Social Studies 99a and b. The writing of a senior thesis. Graded SAT/UNS. Each thesis has two independent readers.
3. *Thesis*: Required.
4. *General Examination*: An oral examination taken at the end of the senior year which includes a defense of the thesis and a general exam, which emphasizes the themes and thinkers taught in Social Studies 10 discussed in relation to the student's work in Social Studies.

**Joint Concentrations**
Social Studies allows joint concentrations with interdisciplinary programs that include social science faculty: generally, African and African American Studies, East Asian Studies, Environmental Science and Public Policy, Near Eastern Languages and Civilizations, Religion, South Asian Studies, Philosophy, and The Study of Women, Gender, and Sexuality, We do not allow joint concentrations with science or humanities departments or with social science departments that we share faculty with (anthropology, economics, government, history, or sociology).

**ADVISING**
Each student entering the concentration is assigned an adviser who sits on the Social Studies Board of Advisers and is responsible for helping the student plan his or her course of study. In the first semester of concentration, the adviser is that student's sophomore tutor. Whenever possible, the same adviser continues to serve in this capacity until the student graduates. When this is not possible, another adviser is assigned who, to the extent possible, shares interests with the student. Students must meet with their advisers at least three times a year to discuss course selection, their focus field, and their plan of study; more frequent meetings are strongly encouraged. The Director of Studies heads the Board of Advisers.

For up-to-date information on advising in Social Studies, please go to www.socialstudies.fas.harvard.edu or visit the Advising Programs Office website.

**HOW TO FIND OUT MORE**
For more information, contact the Assistant Director of Studies for Freshmen and Sophomores, Dr. Bonnie Talbert, or the Undergraduate Program Administrator, Kate Anable, on the third floor of William James Hall (617-495-2163).

**ENROLLMENT STATISTICS**
**Number of Concentrators as of December**

| Concentrators | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Social Studies | 296 | 311 | 297 | 322 | 300 | 280 | 252 | 230 | 246 | 217 | 251 | 237 |
| Social Studies + another field | 6 | 2 | 9 | 10 | 11 | 16 | 19 | 16 | 10 | 15 | 27 | 34 |
| Another field + Social Studies | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

# Sociology

**Paul Chang, Director of Undergraduate Studies**
**Hilary Holbrow, Associate Director of Undergraduate Studies**

Sociology is the study of society, of the social frameworks within which we live our lives. It is a study of social life at every level, from two-person relationships to the rise and fall of nations and civilizations. It is a meeting place of the social sciences, combining its own ideas and methods with insights from history, anthropology, economics, political science, and psychology in an extended examination of the ways societies work—or fail to work.

Sociology nurtures question formation and critical thinking through its mixed-methods approach, encompassing quantitative analysis, ethnography, interviews, historical and comparative studies, computer-based analysis, and theoretical explorations. Through their methodologically diverse coursework, students learn how to apply sociological theories and methods to real-world issues – whether from third world development to corporate capitalism, or from crime in the streets to crime on Capitol Hill.

Students have many opportunities to gain research experience, through course projects, senior theses, and Research Assistantships with faculty. This focus on data collection, analysis, and write-up offers a 'hands on' approach to learning, engages students with the production of sociological knowledge, and prepares students for a wide range of careers in law, medicine, education, business, consulting, finance, public health, journalism, non-profit organizations, and the public sector.

Our faculty includes the world's foremost experts in race, ethnicity and immigration, inequality, economic sociology and organizations, urban poverty and the city, gender and family, crime and punishment, social movements and social change, politics, work, culture, social networks, and comparative and historical sociology. Deep engagement with central social issues in the American landscape is coupled with expertise in political, economic, social and cultural issues in other parts of the world such as Latin America, Asia, and Europe. Drawing on these broad areas of faculty expertise, students may take a variety of courses across multiple areas or put together a focused program of study in one or two areas.

The concentration takes pride in its advising system, which allows for personal attention to students. It also affords substantial access to faculty and administrators and flexibility in meeting individual intellectual agendas, allowing students to benefit from Sociology's broad perspective, which is particularly valuable in our increasingly interdependent world.

**REQUIREMENTS**
**Basic Requirements: 12 courses (48 credits)**

1. *Required courses:*
    1. One course from the introductory series: (Sociology 1000-Sociology 1089). Normally taken during the first year.
    2. Sociology 128: Methods of Social Science Research, a basic introduction to methods (course offered spring term).
    3. Sociology 97: Tutorial in Social Theory, a basic introduction to sociological theory and the

social construction of knowledge (course offered both terms). Normally taken sophomore year (see item 2.1).
4. One quantitative methods course: Stat 100, 101, 102, 104, or Soc 156. Normally taken sophomore year.
5. Sociology 98: Junior tutorial (course offered both terms) (see item 2.2).
6. Two courses in related social science fields: African and African American studies; Anthropology; East Asian Studies; Economics; Government; History; History and Science; Psychology; Social Studies; Women, Gender, and Sexuality. (The related field requirement can also be met with Sociology courses.)
7. Five courses in Sociology.

2. *Tutorials*:
    1. *Sophomore year*: Sociology 97 (one term) required. Small seminars made up of eight to twelve students. An intensive introduction to sociological theory and the social production of knowledge.
    2. *Junior year*: Sociology 98 (one term) required. Small seminars made up of eight to ten students who work on original research projects under the direction of a faculty member. The purpose of this tutorial is to give students experience with independent inquiry and in many cases to develop a senior thesis topic.
3. *Thesis*: Optional.
4. *General Examination*: None.
5. *Other information:*
    1. *Pass/Fail*: Up to two of the required twelve courses may be taken Pass/Fail (but not one of the five specifically required courses: Introductory Series, Sociology 97, 98, 128, or Quantitative Methods). Joint concentrators may not take any courses Pass/Fail.
    2. *Course Credit*: Study abroad, Harvard Summer School, and courses offered by other Harvard faculties may count toward concentration credit in some cases. First-Year Seminars taught by department faculty may also count. Contact the Undergraduate Program and Advising Administrator with questions about the approval process.

**Requirements for Honors Eligibility: 12 courses (48 credits)**

1. *Required courses:*
    1. Same as 1.1-1.6 in **Basic Requirements**.
    2. Three elective courses in Sociology.
    3. Sociology 99. Senior tutorial (see item 2.3 below).
2. *Tutorials:*
    1. *Sophomore year*: Same as **Basic Requirements**.
    2. *Junior year*: Same as **Basic Requirements**.
    3. *Senior year*: Sociology 99 (two terms). Senior thesis workshop; close supervision of thesis. Graded SAT/UNS.
3. *Thesis*: Honors candidates must write a thesis and submit it to the Undergraduate Office in the spring of senior year. Students are urged to choose thesis topics and select an adviser by the end of junior year. Course credit for the thesis work is obtained through enrolling in Sociology 99 in the fall and spring of senior year.
4. *General Examination*: None.
5. *Other information*: Same as **Basic Requirements**.

**JOINT CONCENTRATIONS**
Joint concentrations are permitted with selected fields by application, and always require a thesis. Sociology can serve as either the primary or allied field. For more information, visit http://sociology.fas.harvard.edu/pages/joint-concentration-sociology.

1. *Required courses when Sociology is the primary field: 9 courses*
    1. One Sociology course from the introductory series: (Sociology 1000-1089).
    2. Sociology 97: Tutorial in Social Theory (course offered both fall and spring term).
    3. Sociology 98: Junior Tutorial (course offered both fall and spring term).
    4. Sociology 128: Models of Social Science Research (course offered spring term).
    5. One quantitative methods course: Stat 100, 101, 102, 104, or Soc 156.
    6. Two courses in Sociology.
    7. Sociology 99: Senior Tutorial (two terms).
2. *Required courses when Sociology is the allied field: 6 courses*

1. One Sociology course from the introductory series (Sociology 1000-1089).
2. Sociology 97: Tutorial in Social Theory (course offered both fall and spring term).
3. Sociology 128: Models of Social Science Research (course offered fall term).
4. One quantitative methods course: Stat 100, 101, 102, 104, or Soc 156.
5. Two courses in Sociology.

**ADVISING**
The Associate Director of Undergraduate Studies, Hilary Holbrow (hholbrow@fas.harvard.edu), is responsible for advising Sociology concentrators, in cooperation with Peter Chang (paulchang@fas.harvard.edu), Director of Undergraduate Studies. Questions about program requirements and related administrative matters may be directed to Laura Thomas (lthomas@wjh.harvard.edu), the Undergraduate Program and Advising Administrator. Concentration Advisers, who are graduate students in the Sociology department, are available to students in the Houses.

Students writing a thesis select a thesis adviser by the end of the junior year. Students may choose from among current Sociology faculty, department affiliates, and eligible graduate students. Peter Marsden (peter_marsden@harvard.edu) is available to meet with juniors thinking of writing a senior thesis.

For up-to-date information on advising in Sociology and a current list of concentration advisers, please visit http://sociology.fas.harvard.edu/pages/advising. You may also visit the Advising Programs Office website.

**HOW TO FIND OUT MORE**
Further information may be obtained from the Undergraduate Advising and Program Administrator in William James Hall 650, (Laura Thomas, lthomas@wjh.harvard.edu, 617-495-3713). Additional information is also available on department's website.

**ENROLLMENT STATISTICS**
**Number of Concentrators as of December**

| Concentrators | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sociology | 144 | 155 | 186 | 164 | 141 | 141 | 143 | 135 | 116 | 140 | 152 | 136 |
| Sociology + another field | 4 | 3 | 3 | 5 | 7 | 11 | 9 | 5 | 8 | 0 | 1 | 6 |
| Another field + Sociology | 2 | 3 | 6 | 5 | 7 | 2 | 3 | 3 | 4 | 3 | 2 | 3 |

# South Asian Studies

**Richard Delacy, Director of Undergraduate Studies**

A concentration in South Asian Studies enables students to develop a critical understanding of the diverse cultures, histories, languages and literatures of South Asia, which includes Bangladesh, India, Nepal, Pakistan, Sri Lanka, and Tibet. South Asia is home to more than a billion people and some of the world's most fascinating and important civilizations. Its influence has extended historically from Central, East, and Southeast Asia to Europe and North America, which today have vibrant South Asian diasporas. The study of South Asia is an increasingly important area of academic inquiry, especially in recent decades as the region emerges as a global cultural, economic, and political power.

The concentration offers a range of possibilities for students interested in studying South Asia. Students interested in the arts and humanities may choose to study modern and/or pre-modern South Asia from the disciplinary perspectives of history, history of art, literature, music, philosophy, and/or religion. Students interested in the social sciences may create academic programs which combine the study of languages, literatures, and cultures with course work in anthropology, economics, government, public health, sociology, and/or urban planning.

In addition, joint concentrations with South Asian Studies and another department are possible with the approval of both departments. The department also offers a secondary field in South Asian Studies, as well as language citations in Hindi-Urdu, Sanskrit, Tamil, and Tibetan.

***There are two concentration options.***

**Option A: South Asian Languages, Literatures, and Cultures** [11 courses (44 credits), 13 courses for honors (52 credits)] is for students who wish to focus intensively on learning a major South Asian language, its textual traditions, and broad socio-cultural contexts. The most common choices here are Hindi-Urdu, Sanskrit, Tamil, or Tibetan.

Students who choose Hindi-Urdu as their primary focus should take a full year of Hindi-Urdu 101 no later than their sophomore year. In subsequent years, they will continue their study of Hindi-Urdu and work out a program of study, with the Director of Undergraduate Studies or a designated adviser, which draws upon a range of courses in South Asian Studies and related fields.

Students who choose Sanskrit as their primary focus should take introductory Sanskrit (Sanskrit 101a and 101b) no later than their sophomore year. Beyond the study of Sanskrit, students will work out a program of study, with the Director of Undergraduate Studies or a designated adviser, which draws upon a range of courses in South Asian Studies and related fields.

Students who choose Tamil as their primary focus should take Tamil 101a and 101b no later than their sophomore year. In subsequent years, they will continue their study of Tamil and work out a program of study, with the Director of Undergraduate Studies or a designated adviser, which draws upon a range of courses in South Asian Studies and related fields.

Students who choose Tibetan as their primary focus should take Tibetan 101a and 101b no later than the sophomore year. In subsequent years, they will continue their study of Tibetan and work out a program of study, with the Director of Undergraduate Studies or a designated adviser, which draws upon a range of courses in South Asian Studies and related fields.

**Option B: South Asian Studies** [11 courses (44 credits), 13 for honors (52 credits)] is for students who wish to gain a broad understanding of South Asia. While students may develop a particular area of focus or expertise, the emphasis in this option is on wide-ranging and interdisciplinary studies that are essential to understanding this increasingly important part of our contemporary world.

In this option, language study in Hindi-Urdu, Sanskrit, Tamil, or Tibetan is required. In special cases, another language may be substituted if it is directly related to South Asian Studies and offered by an academic program approved by the department. In addition to the study of a South Asian language, students will work out a program of study, with the Director of Undergraduate Studies or a designated adviser, drawing upon courses in South Asian Studies offered by various departments within the Faculty of Arts and Sciences.

A **Joint Concentration** [9 courses (36 credits)] allows students to combine training in South Asian languages and cultures with a particular discipline in another department. The program of study is jointly agreed upon by both departments.

**The Secondary Field in South Asian Studies** [5 courses (20 credits)] is a more flexible way for students to study South Asia. It maintains the structure of the concentration, with an emphasis on South Asian Languages, Literatures, and Cultures or South Asian Studies, without the obligation of a joint thesis or culminating project.

**Language Citations** are awarded in Hindu-Urdu, Sanskrit, Tamil, and Tibetan, upon completion of four (16 credits) courses beyond the introductory year.

**REQUIREMENTS**
**South Asian Languages, Literatures, and Cultures**
**Basic Requirements**
**11 courses (44 credits)**

1. *Required courses:*

    1. Six courses in Hindi-Urdu, Sanskrit, Tamil, or Tibetan, including at least two courses beyond the second year.
    2. Four additional courses in South Asian Studies, of which at least two must be 100-level non-language courses. Courses for this requirement may include departmental offerings and courses with a South Asia emphasis offered in other departments or as General Education courses, with the approval of the Director of Undergraduate Studies.
2. *Tutorial*: South Asian Studies 98r (Junior Tutorial, one term), individual or group tutorial. Letter-graded.
3. *Thesis*: None.
4. *General Examination*: None.
5. *Other information*: One course taken Pass/Fail or SAT/UNS may be counted for concentration credit, with the approval of the Director of Undergraduate Studies

**Requirements for Honors Eligibility**
**13 courses (52 credits)**

1. *Required courses*: Same as **Basic Requirements**, with the addition of a year-long senior tutorial (South Asian Studies 99) leading to a thesis.
2. *Thesis*: Required of all senior honors candidates.
3. *General Examination*: Honors candidates must take an oral examination based on the work in the concentration and on the thesis.
4. *Other information*: Same as **Basic Requirements**.

**South Asian Studies**
**Basic Requirements**
**11 courses (44 credits)**

1. *Required courses:*
    1. Four courses in Hindi-Urdu, Sanskrit, Tamil, or Tibetan.
    2. Six additional courses in South Asian Studies, of which least two must be 100-level non-language courses. Courses for this requirement may include departmental offerings and courses with a South Asia emphasis offered in other departments or as General Education courses, with the approval of the Director of Undergraduate Studies.
2. *Tutorial*: South Asian Studies 98r (Junior Tutorial, one term), individual or group tutorial. Letter-graded.
3. *Thesis*: None.
4. *General Examination*: None.
5. *Other information*: One course taken Pass/Fail or SAT/UNS may be counted for concentration credit with the approval of the Director of Undergraduate Studies.

**Requirements for Honors Eligibility**
**13 courses (52 credits)**

1. *Required courses*: Same as **Basic Requirements**, with the addition of a year-long senior tutorial (South Asian Studies 99r) leading to a thesis.
2. *Thesis*: Required of all senior honors candidates.
3. *General Examination*: Honors candidates must take an oral examination based on the work in the concentration and on the thesis.
4. *Other information*: Same as **Basic Requirements**.

**Joint Concentration Requirements**
**9 courses (36 credits)**

1. *Required courses:*
    1. Four courses in Hindi-Urdu, Sanskrit, Tamil, or Tibetan.
    2. Two 100-level non-language courses in South Asian Studies. This requirement may be satisfied by departmental offerings and by courses with a South Asia emphasis offered in other departments, with the approval of the Director of Undergraduate Studies
2. *Tutorials*:
    1. *Junior year*: South Asian Studies 98r (one term), or other tutorial as jointly arranged between the two departments.
    2. *Senior year*: South Asian Studies 99r (two terms) if South Asian Studies is the primary field,

or two terms of tutorial in the other concentration if South Asian Studies is not the primary field.

3. *Thesis*: Required.
4. *General Examination*: Honors candidates must take an oral examination based on the work in the concentration and on the thesis.

**ADVISING**
Students are assigned a faculty adviser based on their area of study. Students continue with the same adviser throughout their three years, unless there is a reason for making a change. Students meet with their adviser at least twice a term and at other times as needed.

For up-to-date information on advising in South Asian Studies, please see the Advising Programs Office website.

**RESOURCES**
The University-wide South Asia Institute (SAI) facilitates scholarly exchanges among Harvard faculty and students, specialists in South Asian studies from the US and abroad, and visiting academics and prominent public figures from South Asia. Encouraging the work of Harvard faculty and students, the SAI also provides grants for language study and thesis research.

Harvard College Library contains one of the largest collections of Sanskrit manuscripts and printed texts in the West, and strong collections in Urdu and Sindhi literatures and South Asian studies in general. Together with the Harvard-Yenching Library its holdings of Buddhist texts are perhaps the finest in the world.

**STUDY ABROAD**
The department strongly encourages concentrators to spend either a summer or term in South Asia as part of their studies. For advice on study abroad programs eligible for concentration credit, please see the Director of Undergraduate Studies.

**HOW TO FIND OUT MORE**
Questions about the concentration should be discussed with the Director of Undergraduate Studies, Richard Delacy, rdelacy@fas.harvard.edu, (617) 496-4749.

**ENROLLMENT STATISTICS**
**Number of Concentrators as of December**

| Concentrators | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| South Asian Studies* | 2 | 1 | 1 | 5 | 5 | 5 | 4 | 4 | 2 | 2 | 0 | 0 |
| South Asian Studies* + another field | 1 | 1 | 0 | 1 | 2 | 2 | 1 | 0 | 2 | 1 | 0 | 0 |
| Another field + South Asian Studies* | 2 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 2 | 3 |

* Prior to the 2011-12 academic year, this concentration was named Sanskrit and Indian Studies.

# Special Concentrations

**Dr. Lisa Laskin, Director of Studies**

The option of petitioning for a Special Concentration was established by the Faculty in 1971 for the serious student whose academic interests cross departmental lines. Special Concentrations offers students the opportunity to design their own program of concentration with the advice and consent of the various members of the faculty and administration. With this option the Faculty addressed special

educational objectives not accommodated by existing concentrations. Special Concentrations is not intended to encourage students either to avoid particular departmental requirements or to create a broad, unfocused concentration that could be described as "general studies."

The Standing Committee on Special Concentrations, which is composed of faculty from a wide range of disciplines, sets the general policies and educational guidelines for the program, and considers individually each petition submitted. The detailed administration of each student's program is supervised by the student's faculty adviser and by the Director of Studies.

Although most special concentration proposals include a full tutorial program culminating in a senior thesis for honors candidates, Special Concentrations is also open to students who prefer a basic course of study. Basic concentrators submit a 14 course program (56 credits); 16 courses (64 credits) are required of honors candidates. To the extent that there are similar requirements in the existing concentrations most closely related to the proposed special concentration, an honors-eligible Plan of Study must ordinarily include provision for tutorial in both the junior and senior years, and completion and evaluation of a senior thesis or equivalent. A written or oral general examination, administered by the faculty adviser plus one other faculty member, is required.

Seniors completing the basic program are expected to enroll in Special Concentrations 96r during their final term. This course focuses on the production of a substantial piece of writing or special project related to issues or themes of the student's Special Concentration. The form of the composition is not prescribed and can range from an interpretative essay, to a critical review of the bibliography in the field, to a research paper on a particular topic. The Director of Studies and faculty adviser must approve the project.

There are no a priori minimum grade averages that an applicant must achieve to qualify for Special Concentrations or to obtain approval of a Plan of Study. It is necessary, however, that the standing committee be convinced not only of the quality, rigor, and legitimacy of the topic, but also of the applicant's high level of self-motivation, perseverance, and conscientiousness, since the success of each Special Concentration depends on the drive and determination of the student more than in a regular departmental concentration. From time to time the committee has rejected applications for concentrations that were unquestionably valid areas of academic inquiry but could not be accommodated within existing resources of the University.

The process of development from interest and idea to a detailed and approved special concentration may seem long and complicated, but most students have found it constructive and illuminating. Seeking out a faculty adviser and tutors provides the occasion to meet and talk with a number of faculty members, and not infrequently it turns out that a student discovers that the special plan can be accommodated within an existing department. In other cases, it is clear that Special Concentrations is an appropriate vehicle to assist a student to pursue in depth some interdisciplinary interest. The role of the faculty adviser in special concentrations is crucial. The principal faculty adviser must ordinarily be a member of the Faculty of Arts and Sciences and must agree to supervise and oversee the student's entire program of concentration from the development of the initial course structure through any necessary revisions of the Plan of Study to the general examination required of all senior concentrators.

Each approved Special Concentration exists as a small committee within our program. Plans of Study for the individual concentrations are unique, but all are interdisciplinary. For example,
several recent programs have dealt with food and the environment, while others have addressed topics relating to technology and society. There have also recently been concentrations focusing on issues of health and society, and geography and identity.

Special Concentrations represents a small but significant portion of undergraduate concentrators. It seems best for those students who have not only an unusual interest, but who also have a clear grasp of the direction in which they are heading. Although there are exceptions, most successful Special Concentrations applications have been submitted by upperclassmen who have spent one or two terms studying in one of the College's established concentrations.

**REQUIREMENTS**
**Basic Requirements: 14 courses (56 credits)**

1. *Required courses*: Each concentrator's individual Plan of Study is approved as part of the process

of admission to the concentration. If there is a substitution of courses for more than 25 percent of the original courses proposed, the program must be reviewed by the Standing Committee on Special Concentrations. All individual substitutions or changes in courses to be counted for the concentration must be approved by the individual's faculty adviser and by the Director of Studies of Special Concentrations. Any special requirement for a Special Concentration is established at the time the original Plan of Study petition is approved.

2. *Tutorials*:
    1. *Sophomore year*: Special Concentrations 97r (one or two terms) optional. Letter-graded.
    2. *Senior year*: Special Concentrations 96r (one term) required. Letter-graded.
3. *Thesis*: None.
4. *General Examination*: Required of all seniors.
5. *Other information:*
    1. *Pass/Fail*: No courses counted for concentration may be taken Pass/Fail except that one Freshman Seminar may be counted for concentration credit if permission to do so is obtained from the Director of Studies and if the student receives a positive evaluation.
    2. Each letter-graded course for concentration must be passed with a grade of C or higher.

**Requirements for Honors Eligibility: 16 courses (64 credits)**

1. *Required courses:* Same as **Basic Requirements**.
2. *Tutorials*:
    1. *Sophomore year*: Same as **Basic Requirements**.
    2. *Junior year*: Special Concentrations 98r (two terms) ordinarily required. Letter-graded.
    3. *Senior year*: Special Concentrations 99 (two terms) required. Graded SAT/UNS.
3. *Thesis*: A thesis or its equivalent is required of all honors candidates.
4. *General Examination*: Required of all seniors.
5. *Other information*: Same as **Basic Requirements**.

**ADVISING**

Because of the nature of this program, advising is highly personalized. Students ordinarily have frequent meetings with their faculty adviser during the academic year and discuss their programs with the Director of Studies at least once at the beginning of each term. The Director of Studies also offers guidance to students interested in preparing a Special Concentration proposal for review by our faculty committee.

For up-to-date information on advising in Special Concentrations, please see the Special Concentrations website.

**RESOURCES**

Although in one sense students in Special Concentrations have no particular resources reserved for them such as special libraries or laboratories, in another and very real sense all the resources of the University are available for the support of special concentrators in completing their programs. Since faculty advisers and tutors in Special Concentrations may come from different Harvard faculties, it has been the case that special concentrators in health and society may have the facilities of that school available to them as those with a focus on urban studies might have the facilities of the Graduate School of Design or the Kennedy School.

**HOW TO FIND OUT MORE**

All inquiries should be addressed to the Director of Studies at specialconc@fas.harvard.edu.
Once each term, Special Concentrations hosts an information session for prospective students. Contact specialconc@fas.harvard.edu for the date and time of the next information session.

For more information or to download an application form, please visit our website: https://specialconcentrations.fas.harvard.edu/. The Director of Studies also maintains a current list of concentrators with the titles of their programs and the address and name of their faculty advisers. This list is available to prospective concentrators for the purpose of seeking advice from the students currently in the program.

**ENROLLMENT STATISTICS**

**Number of Concentrators as of December**

| Concentrators | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Special Concentrations* | 14 | 22 | 29 | 14 | 13 | 8 | 6 | 7 | 8 | 7 | 6 | 8 |

*Special Concentrations does not participate in joint concentrations.

# Statistics

**Professor Joseph Blitzstein, Director of Undergraduate Studies**
**Professor Kevin Rader, Associate Director of Undergraduate Studies**

Statistics is a relatively young discipline, organized around the rapidly growing body of knowledge about principled methods for data collection and data analysis, the making of rational decisions under uncertainty, and the modeling of randomness in any quantitative inquiries, including the social, natural, and medical sciences. Statistics has a theoretical core surrounded by a large number of domains of application in fields such as anthropology, astronomy, biology, business, chemistry, computer science, economics, education, engineering, environmental sciences, epidemiology, finance, forensic science, geophysical sciences, government, history, law, linguistics, mathematics, medicine, physics, population science, psychology, sociology, and many others. A basic goal of the concentration in Statistics is to help students acquire the conceptual, computational, and mathematical tools for quantifying uncertainty and making sense of complex data arising from many applications - including statistically sound ways of collecting such data. The mathematical preparation required includes multivariable calculus and linear algebra. The computational preparation required includes Computer Science 50, or above.

A basic introduction to the field is provided by any of Statistics 100 through 104, which introduce statistical principles (without any mathematical or statistical prerequisite), with different areas of application emphasized as indicated in the descriptions. Stat 100, 102, and 104 fulfill the College's Quantitative Reasoning with Data (QRD) requirement, as do several other Statistics courses. (See https://oue.fas.harvard.edu/quantitative-reasoning-data for additional information about the QRD requirement.) A theoretical introduction is provided by Statistics 110: Introduction to Probability together with Statistics 111: Introduction to Theoretical Statistics. These courses provide grounding in traditional and modern approaches to statistical modeling and inference. They are prerequisites for most of the department's more advanced courses, which study specific methods, models, and applications.

The Statistics concentration is a flexible program that permits as many as half of the 14 courses required for honors eligibility to be taken in departments other than Statistics. Because Statistics offers an opportunity to branch out and explore a variety of areas it appeals to students who wish to acquire core skills while preserving their chance for a broad general education. It also appeals to those with strong mathematical interests who enjoy seeing formal argument bear direct fruit in practical use.

A concentration in Statistics prepares a student for many careers in industry (in technology companies, finance, and elsewhere) and government, for graduate study in a very broad collection of engineering, social and natural sciences, and for professional study in law, medicine, business, or public administration. The demand for people with statistical training is rising in most areas.

The Statistics concentration requirements can be fulfilled via any of four tracks: a general track in core statistical principles and methods, a track in Data Science, a track in Bioinformatics and Computational Biology (BCB), and a track in Quantitative Finance. These tracks all lead to a degree in Statistics. The Data Science, BCB, and Quantitative Finance tracks provide interdisciplinary education combining statistics with computer science, biology, and finance, respectively. The general track is the most flexible track, and provides a foundation for statistical theory, methods, and applications.

The Data Science track, newly introduced in 2016, explores the interface of statistics, computer science, and application areas, emphasizing topics such as prediction, machine learning, and analysis of massive data sets. By placing the generation and analysis of data at the center of modern analytics, data science is having a major impact in a vast array of areas, including business, government and politics, science and engineering, medicine and public health, journalism, sports, law, and education. The requirements for the Data Science Track are described in detail below.

The Bioinformatics and Computational Biology Track in Statistics is aimed at undergraduates with interest in quantitative methods and modeling applied to data from the biological, medical, and life

sciences. The recent explosion of size and complexity of data in the biological and life sciences, such as the human/animal/plants genome projects with gene and protein sequences, has motivated the development of new statistical methodologies and models, such as models for gene and protein motifs search, phylogenetic reconstruction, and gene expression analysis. Core requirements in statistics emphasize statistical modeling, especially as it relates to biological systems. Additional courses in biology allow students to obtain a strong foundation in molecular and cellular biology, evolutionary biology, or ecology. The requirements for the Bioinformatics and Computational Biology Track are described in detail below.

The Quantitative Finance Track in Statistics is designed as a specialization for concentrators in Statistics with special interest in quantitative issues that arise in financial and insurance modeling. The focus is on the stochastic analysis that is relevant in these fields. The specific topics addressed include statistical inference of stochastic models that arise in financial/insurance modeling, computational techniques that have become standard in pricing, risk assessment of complex financial/insurance instruments, and analysis and predication for time series. The requirements for the Quantitative Finance Track are described in detail below.
The Department of Statistics also offers a secondary field. With its strong methodological and applications focus, Statistics has consequently attracted students with a primary focus in another discipline, such as psychology, economics, sociology, government, earth and planetary sciences, and biology (both OEB and MCB). The secondary field in Statistics will provide students with a solid background in statistics that they can apply in their primary field or fields of interest. For more information on the secondary field in Statistics, please see the secondary fields section of this website.

See http://statistics.fas.harvard.edu/pages/undergraduate-statistics-general-information for more information about the Statistics concentration.

**REQUIREMENTS**
**Basic Requirements: 12 courses (48 credits)**

1. *Required courses*: Students must fulfill the requirements from one of the following four tracks.
    1. **General Track**
        1. Statistics 110, 111, and 139.
        2. Four additional Statistics courses numbered between 100 and 299 (inclusive). Statistics 98 and Computer Science 181 may also be counted toward this requirement. Only one Statistics course numbered between 100 and 109 (inclusive) can be counted for concentration credit.
        3. Two mathematics courses: Mathematics 19A and 19B, Mathematics 21A (or 18) and 21B, Applied Mathematics 21A and 21B, Mathematics 22A and 22B, Applied Mathematics 22A and 22B, Mathematics 23A and 23C (or 23B), Mathematics 25A and 25B, or Mathematics 55A and 55B.
        4. One computer science course: Computer Science 50, 51, or 61.
        5. Two additional related courses, chosen from item 5A below.
    2. **Data Science Track**
        1. Statistics 110, 111, and 139.
        2. Computer Science 109A/Statistics 121A or Applied Computation 209A
        3. Two mathematics courses: Mathematics 19A and 19B, Mathematics 21A (or 18) and 21B, Applied Mathematics 21A and 21B, Mathematics 22A and 22B, Applied Mathematics 22A and 22B, Mathematics 23A and 23C (or 23B), Mathematics 25A and 25B, or Mathematics 55A and 55B.
        4. Two additional Statistics courses, chosen from Statistics 115, 117, 120, 121B (or Applied Computation 209B), 131, 140, 149, 171, 183, 185, 186, 195, 201, 210, 211, 212, 213, 220, 221, 230, 240, 244.
        5. Three additional computer science courses, chosen from Computer Science 50, 51, 61, 105, 108, 109B (or Applied Computation 209B), 121, 124, 125, 126, 134, 136, 143, 165, 171, 181, 182, 187, 205, 207, 222, 223, 224, 229R, 242, 265, 281, 282R, 287.
        6. One additional related course, chosen from item 5A below.
    3. **Bioinformatics and Computational Biology (BCB) Track**
        1. Statistics 110, 111, and 139.
        2. Two of the four courses Statistics 115, 117, 171, and MCB 112.
        3. One additional Statistics course numbered between 100 and 299 (inclusive). Statistics 98 may also be counted toward this requirement. Only one Statistics course numbered

between 100 and 109 (inclusive) can be counted for concentration credit.
4. Two mathematics courses: Mathematics 19A and 19B, Mathematics 21A (or 18) and 21B, Applied Mathematics 21A and 21B, Mathematics 22A and 22B, Applied Mathematics 22A and 22B, Mathematics 23A and 23C (or 23B), Mathematics 25A and 25B, or Mathematics 55A and 55B.
5. One computer science course: Computer Science 50, 51, or 61.
6. Two life sciences courses: Life Sciences 1A (or Life and Physical Sciences A), Life Sciences 1B.
7. One additional related course, chosen from item 5A below.

4. **Quantitative Finance Track**
1. Statistics 110, 111, and 139.
2. Three additional Statistics courses, chosen from Statistics 123, 131, 149, 170, 171.
3. Two mathematics courses: Mathematics 19A and 19B, Mathematics 21A (or 18) and 21B, Applied Mathematics 21A and 21B, Mathematics 22A and 22B, Applied Mathematics 22A and 22B, Mathematics 23A and 23C (or 23B), Mathematics 25A and 25B, or Mathematics 55A and 55B.
4. One computer science course: Computer Science 50, 51, or 61.
5. Two economics courses: Either Economics 1010A or Economics 1011A, and either Economics 1723 or Economics 1745.
6. One additional related course, chosen from item 5A below.

2. *Tutorial*:
1. *Junior Year*: Statistics 98. Optional; letter-graded.
2. *Senior Year*: Statistics 99R. Optional; SAT/UNS.
3. *Thesis*: None.
4. *General Examination*: None.
5. *Other information*:
1. *Related courses*:
1. Applied Computation 209A, 209B, 221, 295
2. Applied Mathematics 21A, 21B, 22A, 22B, 104, 105, 106, 107, 111, 115, 120, 121, 126, 201, 202, 203, 205, 207, 221, 222, 231
3. Astronomy 100, 193
4. Biostatistics 232, 233, 234, 235, 238, 244, 245, 250, 251
5. Computer Science 20, 50, 51, 61, 105, 108, 109A, 109B, 121, 124, 125, 126, 127, 134, 136, 143, 165, 171, 181, 182, 187, 205, 207, 208, 222, 223, 224, 227R, 228, 229R, 242, 265, 281, 282R, 287
6. Economics 50, 1011A, 1011B, 1030, 1034, 1042, 1051, 1052, 1057, 1078, 1123, 1126, 1152, 1460, 1820, 2110, 2120, 2140, 2142, 2144, 2146, 2150, 2723, 2725, 2728
7. Engineering Sciences 201, 202, 203, 250
8. Government 50, 52, 1002, 1005, 1006, 1010, 1016, 1430, 2000, 2001, 2002, 2003, 2430
9. Mathematics 18, 19A, 19B, 21A, 21B, 22A, 22B, 23A, 23B, 23C, 25A, 25B, 55A, 55B, 101, 106, 110, 112, 113, 114, 115, 116, 119, 121, 122, 123, 136, 155R, 212A, 212BR, 213
10. Molecular and Cellular Biology 111, 112, 199
11. Organismic and Evolutionary Biology 152, 242
12. Philosophy 150
13. Physics 181, 262
14. Psychology 1950,1952
15. HGSE EDU A164
16. MIT 6.036, 6.441, 6.867, 15.097, 15.501/15.516
17. Sociology 1126
18. Statistics 91R (may be taken at most once for concentration credit; graded SAT/UNS), Statistics 98, any 100-level or 200-level Statistics courses. Only one Statistics course numbered between 100 and 109 (inclusive) can be counted for concentration credit.
19. Other relevant courses if approved by the Directors of Undergraduate Studies.

2. *Pass/Fail and SAT/UNS*: One course other than Statistics 99R, 110, 111, and 139 may be taken Pass/Fail or SAT/UNS and counted for concentration credit. Note that Stat 91R is graded SAT/UNS and, if taken for concentration credit, would be the one allowed Pass/Fail or SAT/UNS course for concentration credit.
3. Statistics 110 and 111 must be completed by the end of the junior year.

**Requirements for Honors Eligibility: 14 courses (56 credits)**

1. *Required courses*: Same as **Basic Requirements** for all tracks.
2. *Related courses*: Two additional courses, which may be from the list of related courses (see item 5a above). For students writing a senior thesis, Statistics 99R can count as one of the two additional courses for honors eligibility.
3. *Tutorial*: Same as **Basic Requirements**.
4. *Note*: Eligibility for honors requires either a senior thesis (see item 5 below) or following the advanced course option (see item 6 below). Eligibility for high honors or highest honors requires a senior thesis.
5. *Thesis*: A substantial statistical analysis of a real-life problem, a critical review of statistical methods in some problem areas, or the solution of an open statistical research problem are equally acceptable. There must be a thesis adviser or co-adviser from the Statistics department, unless approved otherwise by the Directors of Undergraduate Study.
6. *Advanced course option*: Statistics coursework that includes a set of at least 7 letter-graded Statistics courses numbered between 110 and 299 (inclusive), with Statistics 110 (or 210), Statistics 111 (or 211), and Statistics 139 (or 244) in this set. At least one of Statistics 210, 211, 220, 230, or 244 must be in the set, and a GPA of at least 3.5 in the set is required.
7. *General Examination*: None.
8. *Other information*: Same as **Basic Requirements**.

**Requirements for Joint Concentrations**
Students interested in a joint concentration should consult the Directors of Undergraduate Studies in both concentrations at an early date.

1. *Statistics as the Primary Field*: 14 courses (56 credits)
    1. Students must satisfy the requirements for honors eligibility. Senior thesis is required; must strongly relate to both fields. There must be a co-adviser or secondary adviser from the Statistics department, unless approved otherwise by the Directors of Undergraduate Study.
2. *Another concentration as the Primary Field*: 10 courses (40 credits)
    1. Statistics 110, 111, 139. Statistics 110 and 111 are required by the end of the junior year.
    2. Four additional courses from Statistics department 100-level or 200-level offerings. Statistics 98 may also be counted toward this requirement. Students may receive credit for only one Statistics course numbered between 100 and 109 (inclusive).
    3. Two mathematics courses: Mathematics 19A and 19B, Mathematics 21A (or 18) and 21B, Applied Mathematics 21A and 21B, Mathematics 22A and 22B, Applied Mathematics 22A and 22B, Mathematics 23A and 23C (or 23B), Mathematics 25A and 25B, or Mathematics 55A and 55B.
    4. One computer science course: Computer Science 50, 51, or 61.
    5. Senior thesis is required; must strongly relate to both fields. There must be a co-adviser or secondary adviser from the Statistics department, unless approved otherwise by the Directors of Undergraduate Study.

**ADVISING**
Concentrators are assigned an individual concentration adviser and are also welcome to discuss the program and their progress with the Directors of Undergraduate Study or any of the concentration advisers in the department. It is expected that concentrators will meet with their adviser at least once per semester. For additional information related to advising see also the Advising Programs Office website.

**HOW TO FIND OUT MORE**
For more information, please consult with the Student Programs Administrator, Kathleen Cloutier, Science Center 400E (617-496-1402, cloutier@fas.harvard.edu) the Director of Undergraduate Studies, Professor Joseph Blitzstein, Science Center 713 (617-496-2985, blitzstein@stat.harvard.edu), or the Associate Director of Undergraduate Studies, Professor Kevin Rader, Science Center 300D (617-495-5204, krader@fas.harvard.edu), and read through the concentration webpage at http://statistics.fas.harvard.edu/pages/undergraduate-statistics-general-information.

**ENROLLMENT STATISTICS**
**Number of Concentrators as of December**

| Concentrators | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Statistics | 17 | 28 | 48 | 60 | 85 | 132 | 154 | 168 | 163 | 154 | 145 | 136 |
| Statistics + another field | 1 | 2 | 2 | 5 | 4 | 4 | 8 | 10 | 11 | 19 | 17 | 28 |
| Another field + Statistics | 2 | 4 | 2 | 10 | 8 | 12 | 13 | 18 | 16 | 26 | 39 | 44 |

# Theater, Dance, & Media

**Debra Levine, Director of Undergraduate Studies**

Theater, Dance & Media (TDM) combines historical and theoretical study of live and digital arts with the practice of those arts. Taught by FAS Faculty, and by practitioners from the American Repertory Theater (A.R.T.) and the Dance Center, as well as numerous visiting artists/scholars each year, students are introduced to the rigor and discipline required to participate in professional theater, dance and media practices. The goal of the concentration is to foster the imagination and intellect using a broad range of arts-based research and practice techniques that offer strong training in creating expressive culture. Students are strongly encouraged to work across art forms, including literature, music, and the visual arts, and beyond the humanities, in order to incorporate new ideas and forms of knowledge into their work in the performing arts.

TDM emphasizes collaboration. The concentration explores the many ways to act, design, direct, compose, produce, choreograph, dance, write, produce and organize models of live art production. Our studio courses model and study the many forms that collaboration can take; similarly, scholarly courses look to the history and theory of culture in order to complement the skills gained in studio practice.

In addition to the required coursework, students pursuing the Theater, Dance & Media concentration are required to meaningfully participate in at least two TDM concentration production studio courses led by professional directors, choreographers, and designers. Concentrators will also obtain valuable technical skills through both working on the crew for at least one concentration show, as well as supporting the work of their peers.

**REQUIREMENTS**
**Elective Program: 12 courses (48 credits)**

1. *Required Courses:*
    1. Four courses focused on critical and scholarly approaches to theater offered through the Standing Committee on Degrees in Theater, Dance, and Media or by faculty in allied fields, including, but not limited to, the departments of Comparative Literature, English, Music, History of Art and Architecture, Art, Film, and Visual Studies, and Folklore and Mythology. These courses should not all be taken in a single discipline, for example dramatic literature, but rather should give the student a range of experience in the various aspects of theater making. At least one of these courses must focus on pre-20th century performance and include various genres and forms of theater, dance, and media. The student will consult with the Director of Undergraduate Studies (DUS) for course approval and to compile a sound plan of study to meet this requirement. [Note: one of the eight courses in either scholarly or practiced-based approaches must be in non-U.S. theater/dance or non-traditional performance.]
    2. Four courses that are practice-based or studio. Courses can include directing, design, acting, dance, choreography, playwriting, dramaturgy, and work in newer media. The student should take courses in more than one discipline. The choice of courses will require the approval of the Director of Undergraduate Studies (DUS). [Note: one of the eight courses in either scholarly or practiced-based approaches must be in non-U.S. theater/dance or non-traditional performance.]
    3. Two TDM production studios (TDM 90AR/BR/CR/DR). These studio courses frame and focus on TDM professionally directed, choreographed, and designed productions each term.

Students are expected to assume major artistic roles, such as actors, dancers, apprentice directors, choreographers, designers, dramaturgs or producers.

2. *Tutorials*:
    1. *Sophomore year*: Theater, Dance, and Media 97: Theater, Dance & Media: See it. Do it. Make Theory. (one term) required. Letter-graded.
    2. *Junior year*: Theater, Dance, and Media 98 (one term) required. Letter-graded.
        1. *Note:* The goal of the junior tutorial is to test insights generated from critical reading in the context of studio practice. The result of the junior tutorial can be a final performance combined with a written account of the relation between reading, research, and studio practice that has occurred over the course of the semester, or a written project that includes reflections on studio work.
3. *Thesis*: None
4. *General Examination*: None
5. *Other Information*: The following additional requirements will be graded SAT/UNS and must be approved by the DUS.
    1. The Samuel Becket Crew Assignment: Students must complete one production crew assignment by working on one TDM production.
    2. A workshop in theater safety, completed by the end of senior first semester.

**Requirements for Honors Eligibility: 14 courses (56 credits)**

1. *Required courses*: Same as **Basic Requirements**
2. *Tutorials*: Same as **Basic Requirements**, plus two terms of Theater, Dance, and Media 99: Senior Tutorial (year-long 8-credit course) required. Graded SAT/UNS
3. *Thesis*: Honors candidates may complete a performance-based or critical thesis. Theses are proposed in the second semester of junior year and must be approved by the Executive Committee on Theater, Dance & Media and the DUS.
4. *General Examination*: None
5. *Other Information*: Same as **Basic Requirements**. In addition, if students plan on doing a production as part of their thesis requirements, they must complete a crew assignment on another student's thesis production, ideally before their senior year

**Requirements for Joint-Concentration**: Consult Director of Undergraduate Studies and see TDM website for further information.

**ADVISING**
The Director of Undergraduate Studies (DUS) advises all students when they enter the concentration, eventually assigning to them additional faculty and professional advisers, based on the students' particular interests and their work in or on specific productions. Together with the DUS, these advisers will support students in developing a coherent course of study and a solid body of artistic work that is suited to each student's goals and interests.

**HOW TO FIND OUT MORE**
For more information about the concentration, please visit the department website.

**ENROLLMENT STATISTICS**
**Number of Concentrators as of December**

| Concentrators | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|
| Theater, Dance, and Media | 8 | 12 | 17 | 18 | 15 |
| Theater, Dance, and Media + another field | 1 | 2 | 9 | 10 | 11 |
| Another field + Theater, Dance, and Media | 3 | 6 | 8 | 3 | 9 |

Theater, Dance, and Media was a new concentration in 2015-16

# Women, Gender, and Sexuality, Study of

**Dr. Caroline Light, Director of Undergraduate Studies**

The study of gender and sexuality has long constituted a vibrant and engaging arena for interdisciplinary work and intellectual inquiry. At the heart of this field is the assertion that gender and sexuality are fundamental categories of social organization and power that are inseparable from race, ethnicity, class, nationality, and other categories of difference.

The concentration in Studies of Women, Gender, and Sexuality (WGS) brings together a wide range of academic fields in the humanities, social sciences, and sciences (including history, literature, visual studies, anthropology, sociology, ethnic studies, political science, psychology, and biology, to name just a few). As an interdisciplinary field of study, WGS pays close attention to how social norms have changed over time and how they vary across cultures. The concentration also actively investigates the ways in which ideas about gender and sexuality have shaped public policy, civil rights, health care, religion, education and the law, as well as the depiction of women and men in art, literature, and the popular media. WGS courses are characterized by a strong commitment to critical thinking, as well as a spirit of open and sustained intellectual inquiry.

WGS prides itself on the intense intellectual engagement of its students and its close collaboration between students and faculty. Beginning with the small-group sophomore tutorial (WOMGEN 97), WGS provides students with a rigorous grounding in the theory and methodology of gender and sexuality studies, helping students hone their skills in critical analysis, close reading, and effective research and writing. All full concentrators must enroll in the two foundation courses numbered WOMGEN 1200 (historical approaches) and WOMGEN 1210 (theories of gender and sexuality), and two WGS or WGS-related 1400+ level seminars. Joint concentrators may choose one of the foundation courses. Concentrators may also fulfill concentration requirements by taking courses on WGS-related topics in other programs and departments. (A list of pre-approved courses from other departments is available on the WGS website.) Students will work with concentration advisers to develop cohesive plans of study that are primarily situated within the humanities, social sciences, or natural sciences.

**Requirements**: 12 courses (48 credits), including WOMGEN 97(Sophomore Tutorial), WOMGEN 1200 (historical approaches), and WOMGEN 1210 (theories of gender and sexuality), seven electives, and two WGS courses at the 1400+ level. Students may opt to take an approved “engaged scholarship” course in place of one of the 1400+ level courses.

**Thesis Track**: 13 courses (52 credits). Students interested in pursuing honors recognition will apply to enter the thesis track during the first semester of junior year. The director and associate director of undergraduate studies will review applicants' previous academic records and may also elect to interview students before admission to the thesis track. In the spring, students selected for the thesis track will enroll in WOMGEN 98r (Junior Tutorial - Research and Methods), a semester-long seminar designed to help them understand the craft of WGS research and writing. Students meet weekly in seminar to develop their methodological skills and workshop their research projects. Over the course of the semester, students collaboratively develop a syllabus, identify a research topic, create a proposal, and research and write a 20-to-25-page paper.

During senior year, thesis track students enroll in WOMGEN 99a/b, where they design, research, and write senior theses. Thesis track students work individually with a thesis adviser and participate in a group senior tutorial. In keeping with the interdisciplinary character of WGS, senior theses may draw upon a wide range of approaches, including literary analysis, ethnography, scientific investigation, archival research, visual analysis, and cultural or political critique. Honors-eligible students also take an oral examination.

**Joint Concentrations**: A joint concentration is an excellent choice for honors-eligible students who want to integrate their studies in WGS with deeper exploration of another field, building toward a final integrated thesis project. Students can pursue a joint concentration with WGS and a range of other concentrations including African and African American Studies, Anthropology, English, History and Literature, History and Science, Literature, Music, Philosophy, Religion, Romance Languages, Social Studies, Sociology, Statistics, and Visual and Environmental Studies. Since course requirements vary among the individual programs, students planning to concentrate jointly are responsible for meeting with advisers in both concentrations to obtain specific guidelines.

**Secondary Fields**: Students take one foundation course (either WOMGEN 1200 or WOMGEN 1210), which grounds them in the history or theory of gender and sexuality studies. The flexibility of the remaining four course requirements allows students to sample the rich course offerings in WGS while

developing core areas of interest.

We advise interested first-year students and sophomores to take a WGS course at the 1100 or 1200 level, a Freshman Seminar on WGS issues, or one of the General Education courses offered by WGS faculty. Students interested in WGS as a concentration or a secondary field should meet with either the director or assistant director of undergraduate studies.

Further information is available on the WGS website, including a list of courses outside WGS that count for concentration credit. Students may also wish to consult the list of resources and opportunities in gender and sexuality studies available online.

**REQUIREMENTS**
**12 courses (48 credits)**
*Required courses:*

1. Sophomore Tutorial: WOMGEN 97.
2. History foundation course: WOMGEN 1200.
3. Theory foundation course: WOMGEN 1210.
4. Two WGS courses numbered 1400+, one of which may be an approved “engaged scholarship” course.
5. Seven courses drawn from WGS offerings or from the list of courses that count for concentration credit (available on the WGS website).

**Requirements for the Thesis Track: 13 courses (52 credits)**

1. Sophomore Tutorial: WOMGEN 97.
2. History foundation course: WOMGEN 1200.
3. Theory foundation course: WOMGEN 1210.
4. Any WGS course numbered 1400+, one of which may be an approved “engaged scholarship” course.
5. Six courses drawn from WGS offerings or from the list of courses that count for concentration credit (available on the WGS website).
6. Junior Tutorial - Research and Methods: WOMGEN 98.
7. Senior Tutorial: WOMGEN 99a and 99b, the writing of the senior thesis.

**Requirements for Joint Concentration (thesis track only)**
**Women, Gender, and Sexuality as the Primary Concentration: 8 courses (32 credits) (including thesis)**

1. Sophomore Tutorial: WOMGEN 97.
2. Either the history foundation course (WOMGEN 1200) or the theory foundation course (WOMGEN 1210).
3. Three courses drawn from WGS offerings or from the list of courses that count for concentration credit (available on the WGS website).
4. Junior Tutorial - Research and Methods: WOMGEN 98.
5. Senior Tutorial: WOMGEN 99a and 99b, the writing of the senior thesis.

**Women, Gender, and Sexuality as the Allied Concentration: 5 courses (20 credits)**
*Required courses:*

1. Sophomore Tutorial: WOMGEN 97.
2. Either the history foundation course (WOMGEN 1200) or the theory foundation course (WOMGEN 1210).
3. Two courses drawn from WGS offerings or from the list of courses that count for concentration credit (available on the WGS website).
4. Junior Tutorial - Research and Methods: WOMGEN 98.

*Note: Joint concentrators with WGS as the allied concentration take the senior tutorial (99a and 99b) in their primary concentration.*

**ADVISING**
Whether they are full or joint concentrators, all students receive individual attention and advising from a

core group of dedicated and highly-engaged faculty. The director of undergraduate studies is the primary academic adviser for sophomores and juniors, and the associate director of undergraduate studies is the primary academic adviser for seniors. In consultation with their faculty advisers, students develop individual, cohesive plans of study tailored to their specific intellectual interests. Faculty members are closely involved with students' academic development at every stage of the concentration. Many of the courses offered by WGS are seminars, allowing for an exciting and productive exchange of ideas between students and faculty.

For up-to-date information on advising in Studies of Women, Gender, and Sexuality, please see the Advising Programs Office website.

**RESOURCES**

The Arthur and Elizabeth Schlesinger Library on the History of Women in America is the leading research library in the field. The library holds more than 35,000 volumes, 800 collections of personal and organizational papers, 50,000 photographs, oral histories, videotapes, and other historical materials. The library collects information on women's rights, suffrage, social welfare and reform, pioneers in the professions, and the family. Carol J. Pforzheimer Student Fellowships are awarded annually to undergraduates to use the resources of the library.

The Henry A. Murray Research Archive is a multidisciplinary research center whose focus is the study of lives over time. It is also a national archive for social science data on human development and social change, especially data that illuminate women's lives and issues of concern to women. Students and researchers at all levels, from undergraduates to scholars, use the center's resources. These include studies of family life, careers, psychological development, political participation, and mental health.

The Open Gate Foundation, "A Fund for Gay and Lesbian Life at Harvard University," is a private charitable foundation established by members of the Harvard Gay and Lesbian Caucus, which gives grants to student groups and faculty to help finance a variety of events and activities, including speakers, symposia, and film festivals. Further information may be obtained from the Open Gate website.

**STUDY ABROAD**

With good planning, a term abroad or out of residence can be a very meaningful educational experience. In the past our concentrators have spent terms in countries such as South Africa, Kenya, Chile, Australia, Spain, and France. Most concentrators who study abroad do so in the fall term of junior year, which allows them to return to campus in time to take the junior tutorial (WOMGEN 98) the following spring. Thesis track concentrators who wish to study abroad during the spring term of junior year must make special arrangements to complete the junior tutorial. If you are a concentrator considering a term abroad, please consult your concentration adviser as well as the Office of International Education as soon as possible. Plans for study out of residence must be approved by the University significantly in advance of the term in which a student plans to be away.

**HOW TO FIND OUT MORE**

For further information, contact the main office at 617-495-9199 or via email at wgs@fas.harvard.edu. The office of the Committee on Degrees in Studies of Women, Gender, and Sexuality is located on the ground floor of Boylston Hall. A description of WGS concentration options, a list of current course offerings, and thesis track application materials are available from the office and on our website.

**ENROLLMENT STATISTICS**

**Number of Concentrators as of December**

| Concentrators | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Studies of Women, Gender, and Sexuality | 10 | 13 | 17 | 16 | 15 | 13 | 12 | 12 | 14 | 14 | 9 | 8 |
| Studies of Women, Gender, and Sexuality + another field | 4 | 2 | 2 | 1 | 2 | 1 | 3 | 2 | 2 | 4 | 7 | 5 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Another field + Studies of Women, Gender, and Sexuality | 7 | 5 | 10 | 19 | 21 | 23 | 16 | 9 | 15 | 10 | 26 | 30 |

# Secondary Fields

Student FAQs Faculty FAQs Secondary Field Declaration

**Secondary Fields Program Index**

**Starting with the 2015-2016 Academic Year, the former terminology of "half-course" and "full-course" now corresponds to "4-credits" and "8-credits," respectively, and "course" refers to a 4-credit entity unless otherwise specified.**


**African and African American Studies**

• African Studies

• African American Studies

**Anthropology**

**Archaeology**

**Astrophysics**

**Celtic Languages and Literatures**

**Chemistry**

**Classics**

**Comparative Literature**

**Computer Science**

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**Educational Studies**

**Energy and Environment**

**English**

**Environmental Science and Public Policy**

**Ethnicity, Migration, Rights**

• Ethnicity, Migration, Rights

• Latino Studies

**European History, Politics, and Societies**

**Folklore and Mythology**

**Molecular and Cellular Biology**

**Music**

**Near Eastern Languages and Civilizations**

• The Middle East in Antiquity

• Histories and Cultures of Muslim Societies (Islamic Studies)

• Jewish Studies

• Modern Middle Eastern Studies

• Comparative Near Eastern Studies

**Neuroscience**

**Philosophy**

• General Philosophy

• Value Theory

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• History of Philosophy

**Physics**

**Psychology**

**Religion, Comparative Study of**

**Romance Languages and Literatures**

• French

• Italian

• Portuguese

• Spanish

**Russia, Eastern Europe, and Central Asia**

**Germanic and Scandinavian Studies**

**Global Health and Health Policy**

**Government**

**History**

**History of Art and Architecture**

**History of Science**

**Human Evolutionary Biology**

**Integrative Biology**

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**Medieval Studies**

**Microbial Sciences**

**Mind Brain Behavior**

**Slavic Languages and Literatures**

• Central European Studies

• Russian Studies

**Sociology**

**South Asian Studies**

**Statistics**

**Theater, Dance, and Media**

**Translation Studies**

**Art, Film, and Visual Studies**

• Film/Video

• Film and Visual Studies

• Studio

**Women, Gender, and Sexuality, Studies of**

## African and African American Studies

The secondary field enables students whose concentration is outside the field of African and African American Studies to gain a basic understanding of the history, cultures, politics, and social problems of Africans and peoples of African descent. Africans and peoples of African descent have developed cultural forms and traditions that are worthy of study in their own right and that also have profoundly shaped the fine arts and popular culture in the Americas and all around the planet. Black struggles for freedom, both on the continent of Africa and throughout the Western hemisphere, have served as a model for other oppressed groups throughout the world. Comparative and cross-cultural studies of Africa and its diaspora contribute enormously to our understanding of race and ethnicity; and in addressing the ethical, social, and political consequences of racial and ethnic antagonism, the field of African and African American Studies raises questions relevant to the experiences of all peoples. The Department of African and African American Studies (AAAS) offers two secondary field pathways.

**REQUIREMENTS: 5 courses (20 credits)**

**African Studies**

1. One introductory course in African Studies.
2. One course in African history.
3. Three additional courses in African Studies, two of which may primarily be focused on language study.
4. At least one of the five courses must be at the 100-level.

**African American Studies**

1. One introductory course in African American Studies.
2. One course in African American history.

3. Three additional courses in African American Studies.
4. At least one of the five courses must be at the 100-level.

**OTHER INFORMATION**

With the exceptions of Freshmen Seminars and courses taken abroad, only one course can be taken Pass/Fail or SAT/UNS. All grades must be passing grades.

Students may petition the Director of Undergraduate Studies to have a relevant course taken in another FAS department or in General Education count toward the secondary field requirements. (Note: Courses cross-listed with AAAS automatically count toward the secondary field requirements.) Students may also petition to have a Freshman Seminar, a course taken abroad, a Harvard Summer School course, or a Harvard course outside of FAS count toward the secondary field requirements. However, at least three of the five courses must be drawn from regular AAAS course offerings.

After concentrators, students who are signed up for the secondary field will receive priority in limited enrollment courses.

**ADVISING RESOURCES AND EXPECTATIONS**

Students considering a secondary field in AAAS should contact the Director of Undergraduate Studies, Suzanne Blier ( blier@fas.harvard.edu), or Faton Limani the Graduate and Undergraduate Studies Coordinator at faton_limani@fas.harvard.edu /617-384-7767, for further information or advising.

# Anthropology

Social Anthropology is concerned with the social and cultural diversity of contemporary human communities and groups. Social anthropologists study topics, including gender, race and ethnicity; religion and belief; economic development; illness, healing and global health; human rights and political violence; popular culture and the role of media in society; food and consumption; and the impact of globalization. Ethnographic research methods emphasize intensive participant observation of community life over an extended period of time in settings such as urban neighborhoods, college campuses, global markets, refugee camps, hospitals, and government offices and courtrooms as well as in rural towns and backcountry settlements.

A secondary field in Social Anthropology can be a valuable complement to many concentrations, especially for students who are interested in an international career or simply wish to become informed citizens of a globalized world. Social Anthropology courses emphasize skills that enable students to operate in different cultural environments, skills that can be transferred to careers in education, journalism, law, business, medicine, politics and public service, as well as in humanitarian and development fields.

There are several options to consider in planning a secondary field in Social Anthropology. You might wish to explore the wide range of departmental offerings in order to gain a general sense of the field. Or you may prefer to focus on a particular world region, such as Asia, Latin America, or Africa and the African diaspora, or specialize in a particular topic or approach. Some popular areas of specialization include:

• **Medical Anthropology**, which concerns the social dimensions of healing and illness, issues of global and community health care, and the culture of biomedicine.

• **Anthropology of Human Rights**, which focuses on issues of conflict and violence, economic and political inequality, indigenous rights, truth and reconciliation, humanitarianism and social justice. Related topics of inquiry also include social stratification and distinction, race, ethnicity, inequality, and gender.

• **Political Ecology and Development**, which examines human social relationships with the natural and built environment, including social, political and economic dimensions of resource utilization and control; the politics of environmental conservation and degradation; the impact of economic and technological interventions on local social worlds.

• **Media Anthropology**, which covers both training in the use of documentary media such as film, photography, and sound recordings in ethnographic settings; and the study of art, mass media, and,

more broadly, the sensuous elements of human experience - sight and images; sound; taste; tactility; dance; and movement.

Whether you choose a general or a focused approach, the Social Anthropology advising team (Director of Undergraduate Studies, Assistant Director of Undergraduate Studies, and Undergraduate Program Coordinator) can help with planning and course selection for the secondary field. In some cases, students may also wish to discuss their plans for a focused secondary field with an appropriate member of the Department faculty. You can find more information about the Secondary Field in Anthropology as well as some model study plans on our department website.

Whichever approach you choose, your transcript will indicate that you have taken a Secondary Field in Anthropology.

**REQUIREMENTS: 4 courses (16 credits)**

Four courses in Social Anthropology are required to complete the secondary field. There is no fixed sequence in which these courses must be taken, but students are strongly encouraged to enroll in Anthropology 1610 (“Ethnographic Research Methods”) or another course that provides a broad overview of the discipline of Social Anthropology. Consult the DUS or ADUS for appropriate courses.

Courses can be drawn from any departmental or formally cross-listed courses offered by regular Social Anthropology faculty. One of these may be a Freshman Seminar. Graduate courses offered by Social Anthropology faculty may, with instructor's permission, be taken for secondary field credit. One course in Archaeology taught by a member of the Department faculty can be counted for credit toward the Social Anthropology secondary field.

**OTHER INFORMATION**

All four courses must be taken for a letter grade, with the exception of the Freshman Seminar, which must receive a grade of SAT. Letter-graded courses must receive a grade of C or better to count for the secondary field.

Under ordinary circumstances, courses taken abroad or in the Harvard Summer School will not be counted towards a secondary field unless they are taught by a regular member of the Social Anthropology Faculty.

**ADVISING RESOURCES AND EXPECTATIONS**

To discuss the secondary field in Social Anthropology or for specific questions about secondary field requirements, contact the Department of Anthropology Director of Undergraduate Studies (DUS) or Assistant Director of Undergraduate Studies (ADUS). For general information, please contact the Anthropology Department's Undergraduate Program Coordinator at anthrouc@fas.harvard.edu, or stop by the Undergraduate Office, Room 103B, Tozzer Anthropology Building, 21 Divinity Avenue.

# Archaeology

Archaeology explains when, how, and why things happened in the past. Archaeologists document patterns of change and variability through time and space and relate these changes to the world around us today. In broader terms, archaeological research involves the discovery, description, and analysis of technological adaptation, social organization, artistic production, ideology, and other forms of human expression through the study of material remains recovered from the excavation of sites that were used or settled by past peoples. Analyses may be peculiarly archaeological in nature - the classification of broken pieces of pottery is an example - or they may involve the use of methods, analytical techniques, and information from fields as diverse as art history, astronomy, biological anthropology, botany, chemistry, genetics, history, linguistics, materials science, philology, physics, social anthropology, and zoology.

The formal study of archaeology prepares students to evaluate critically the record of human material production and to develop informed perspectives on the ways the past is presented, interpreted, and dealt with by a wide range of actors - from interested individuals to nation-states - in societies around the

world today. Archaeologists carry out basic research in the field and in museum collections and increasingly deal with such topics as cultural resource management (including the recovery, documentation, conservation, and restoration of ancient artifacts); cultural tourism; nationalistic uses and abuses of the past; the depiction of the past in the media (including film, television, and the internet); the illegal trade in antiquities; repatriation of cultural patrimony; and environmental and climatic change.

**REQUIREMENTS: 5 courses (20 credits)**

1. One introductory course selected from:
    - GENED 1105: Can We Know Our Past?
    - Anthropology 1010: The Fundamentals of Archaeological Methods & Reasoning
    - Anthropology 1130: Archaeology of Harvard Yard
    - Introductory course in the archaeology of Ancient Greece and/or Rome or in Medieval Archaeology, as available
    - In addition to the required introductory course, a student may count only one additional introductory course from the above list for the secondary field.
2. Four additional courses selected from those listed under the course search "Archaeology" in courses.my.harvard.edu and approved by the Secondary Field Adviser.

**OTHER INFORMATION**

Up to three approved courses in Gen Ed may be counted toward fulfillment of the requirements for the secondary field. In addition, one approved course in the student's concentration and a maximum of two ancient language courses may be counted toward secondary field credit. All course work must be taken for a letter grade and must be passed with a grade of B- or better.

Students pursuing a secondary field in Archaeology are strongly encouraged to participate in an archaeological field school in the U.S. or abroad. Students who complete a Harvard-sponsored or a pre-approved off-campus archaeological field school may count one course credit from that field school experience toward completion of the secondary field.

**ADVISING RESOURCES AND EXPECTATIONS**

For more information, please contact the Secondary Field Adviser in Archaeology, Professor Jason Ur, jasonur@fas.harvard.edu. Students interested in or intending to pursue a secondary field in Archaeology should first review their programs of study with the Standing Committee on Archaeology Coordinator by emailing sca@fas.harvard.edu before the beginning of their next to last semester. Whether considering or having decided on a Secondary Field in Archaeology, students are strongly encouraged to use the Secondary Fields Web tool to work out a proposed program of study and to notify the secondary field advisor early on in the process.

# Astrophysics

The secondary field in Astrophysics builds the foundation from which students may consider some of the deepest questions of the physical universe. What was the state and composition of the Universe at the moment of the Big Bang? What is the nature of the force that currently dominates the expansion of the Universe? How do space and time behave in the vicinity of a black hole? How do galaxies form, and how do stars and planets form within those galaxies? Are there habitable worlds other than our own?

The goal of the secondary field in Astrophysics is to provide students with an understanding of the physical universe beyond the Earth that emphasizes the interplay between the remote observation of astrophysical phenomena and the construction and testing of mathematical models to interpret those observations. The heart of the secondary field consists of two courses, Astronomy 16 and 17, that together provide a survey of astrophysics that is firmly rooted in single-variable calculus and freshman mechanics. These courses may be taken in either order, and each course includes the hands-on use of various astronomical observatories located on the Harvard campus.

In order to encourage students to pursue the secondary field while maintaining a rich schedule of other academic interests and extra-curricular activities, the requirements number only 4 courses including the prerequisite physics. The secondary field is intended to serve a broad audience: since there are no requirements other than single-variable calculus, any student can undertake the secondary field in astrophysics, and it will benefit a wide range of careers including science education, public outreach,

policy, or journalism. Many of the questions listed in the first paragraph lie at the interface of astronomy with physics, earth and planetary sciences, applied mathematics, computer science, and engineering sciences; and so concentrators in those departments may wish to consider the secondary field in Astrophysics closely. The structure of the requirements below is the same as the foundation for the Astrophysics concentration, so that students who develop a strong interest in the field and wish to concentrate in it may do so easily.

**REQUIREMENTS: 4 courses (16 credits)**

1. Physical Sciences 12a, Physics 15a, or Physics 16, providing an introduction to mechanics. This serves as the co-requisite for Astronomy 16 and Astronomy 17.
2. Astronomy 16, providing an introduction to stellar and planetary astronomy.
3. Astronomy 17, providing an introduction to galactic and extragalactic astronomy.
4. One additional course in Astronomy, either Astronomy 98, or any course in Astronomy at the 100-level.

**OTHER INFORMATION**

Together Astronomy 16 and 17 provide a complete introductory survey of astrophysics using single-variable calculus and freshman mechanics. These courses are not sequential and thus may be taken in either order.

Study abroad and summer courses taken at other institutions may be substituted for substantially equivalent Harvard courses with the permission of the Director of Undergraduate Studies.

No course counted for secondary field credit may be taken Pass/Fail.

**ADVISING RESOURCES AND EXPECTATIONS**

Students pursuing the secondary field in Astrophysics enjoy many of the benefits afforded concentrators in Astrophysics: they choose a faculty adviser, are encouraged to participate in all departmental events and activities, and have access to several on-campus observatories. Students are also encouraged to consider research in astrophysics conducted either during the semester or the summer. The Department of Astronomy (http://www.cfa.harvard.edu) is located within the Harvard-Smithsonian Center for Astrophysics (CfA; http://www.cfa.harvard.edu), which is home to over 300 scientists and thus offers significant opportunities for undergraduate research. Astronomers at the CfA make regular use of observatories located across the globe and thus there are numerous opportunities for research-related travel for undergraduates.

Students who are considering the secondary field in Astrophysics are encouraged to contact the Director of Undergraduate Studies, Professor Karin Öberg, at 617-496-9062 or koberg@cfa.harvard.edu.

# Celtic Languages and Literatures

The Celtic languages - now spoken mainly in Ireland, the British Isles, and Brittany - were once spoken over much of Europe and in Asia Minor. Speakers of Celtic languages are passionate about the survival of their languages, and many people in Ireland, Wales, Scotland, and Brittany choose to live their lives in the Celtic languages native to their countries, despite the dominance of English or French. In addition to preserving a strong sense of cultural community, the Celtic languages are treasure troves of story, poetry, and song ranging from the medieval to the contemporary. The languages are fascinating in themselves, quite different in their syntax from the Germanic and Romance languages that underlie English, and extraordinarily rich in idiom. They offer a direct link to the literary traditions of early medieval Europe, while at the same time holding an important position in the growing cultural pride and economic vibrancy of their societies. The speakers of Celtic languages have an important place in the history of European culture, and the splendid medieval literatures of Ireland and Wales constitute a hugely rewarding field of study. The languages are of great linguistic interest, and can boast some of the finest contemporary writers in the Celtic countries. The Department of Celtic Languages and Literatures offers courses in the medieval as well as the modern Celtic languages, and in the literature, folklore, and

mythology of the Celtic-speaking peoples.

Classes in the Celtic Department are small, and there is a strong sense of community among undergraduates, graduate students, and faculty, enhanced by social gatherings, talks, and an annual colloquium to which undergraduates are most welcome.

The department offers a secondary field that is flexible enough to cater to students with a broad interest in the Celtic cultures or in Celtic folklore and mythology, and for those who are more particularly interested in the Celtic languages and literatures of Ireland, Scotland, and Wales.

Students who complete a Secondary Field in Celtic may expect, not only to become familiar with the origins of the Celtic peoples and the growth of their cultural traditions, but also to understand better the foundations of ethnicity in any people that understands itself as possessing a distinct identity; to develop a keen critical awareness of the nature and vitality of oral traditions in their vibrant interrelationships with literary traditions; and to be aware of the precarious state of many of the world's seven thousand languages, and why it matters.

**REQUIREMENTS: 5 courses (20 credits)**

Any General Education course, and one Freshman Seminar, offered by members of the Celtic Department may count towards the secondary field. At least one 100-level course offered within the Celtic Department is required. One Harvard Summer School course or study abroad course may be counted upon the approval of the department's Secondary Field Coordinator. All other courses should be selected from the offerings of the department.

**OTHER INFORMATION**

With the exception of the freshman seminar, all courses must be taken for a letter grade, with a minimum grade of C.

**ADVISING RESOURCES AND EXPECTATIONS**

For more information on the secondary field, contact the Department Administrator, Mary Violette (617-495-1206, violette@fas.harvard.edu) or the Secondary Field Coordinator, Professor Natasha Sumner (nsumner@fas.harvard.edu).

# Chemistry

A secondary field in Chemistry gives students a well-rounded experience of the discipline. This secondary field is appropriate for anyone who has an inherent interest in the subject or would like to gain a deeper knowledge of science to use in their professional lives.

**REQUIREMENTS: 6 courses (24 credits)**

Six letter-graded courses in chemistry that include at least one upper level course in chemistry. Upper-level, letter-graded courses in chemistry include Chemistry 40, 60, and any 100- or 200-level chemistry course.

**OTHER INFORMATION**

Students completing a secondary field in Chemistry must earn a C- or better in each of these courses, with the exception of designated Freshman Seminars, which are graded SAT/UNS.

Most students interested in the secondary field will take four or five of the following introductory courses: Life and Physical Sciences A, Life Science 1a, Physical Sciences 1, Chemistry 17, Chemistry 20, Chemistry 27, and Chemistry 30. However, students choosing to complete a secondary field in Chemistry will be free to choose any six courses in chemistry as long as one of these courses is an upper-level course in chemistry.

One term of research for credit via the courses Chemistry 91r, 98r or 99r may be counted towards the secondary field requirements. These courses do not satisfy the upper-level course requirement.

The Harvard Summer School courses Chemistry S-1 a, b and Chemistry S-20 a, b can be used to

complete secondary field requirements with each counted as one year-long course (two 4-credit courses) in chemistry.

Any Freshman Seminar or General Education course offered by a member of the Department of Chemistry and Chemical Biology (*e.g.*, FS 22J) may be used to count towards a secondary field in Chemistry, if at least two upper-level courses in chemistry are included as a part of the six required courses.

One course taken abroad may count toward a secondary field in Chemistry if successfully approved by petition to either the Director of Undergraduate Studies.

The sophomore tutorial in Chemistry, offered in the spring term, is optional and cannot be taken for credit by any student. Secondary field students may participate in the sophomore tutorial regardless of class year.

**ADVISING RESOURCES AND EXPECTATIONS**

Students who notify the department of their intent to pursue a secondary field will be included on the Chemistry concentrator email list and will be welcome at all undergraduate social and academic events including the sophomore tutorial. Once a student has chosen a secondary field in Chemistry, the student should contact the Director of Undergraduate Studies, Dr. Gregg Tucci (tucci@fas.harvard.edu), for advising. Priority for appointments with the DUS will be given to concentrators during shopping period.

# Classics

The Department of the Classics offers a secondary field in Classical Civilizations for students wishing to explore an interest in Greco-Roman antiquity and its reception in the medieval and modern periods. The Classical Civilizations secondary field provides both a general introduction to the Greek and/or Roman world and the opportunity to pursue particular interests in greater depth.

**REQUIREMENTS: 5 courses (20 credits)**

One semester of either Classical Studies 97a or Classical Studies 97b.

Four additional courses from among those listed under Classics in the course search in courses.my.harvard.edu (including cross-listed courses). Other courses may be counted with approval of the Director of Undergraduate Studies.

**OTHER INFORMATION**

No more than two courses in Modern Greek may count toward the secondary field in Classical Civilizations. Note that Modern Greek A and B are full-year courses and thus each count as two such courses.

One course may be taken Pass/Fail.

**ADVISING RESOURCES AND EXPECTATIONS**

Students interested in pursuing a secondary field in Classical Civilizations should contact the Director of Undergraduate Studies, Professor Jared M. Hudson (classicsDUS@fas.harvard.edu).

# Comparative Literature

Comparative Literature offers a secondary field for students who wish to work across languages, cultures, and media in a comparative and interdisciplinary context.

**REQUIREMENTS: 5 courses (20 credits)**

1. Comparative Literature 97 (Sophomore Tutorial) to be taken as early as possible in the student's program of study

2. Two courses from offerings in Comparative Literature at the 100-level or above
3. Two courses that examine the following:

   A. A literature other than English, with readings of primary texts in that language

   *-and/or-*

   B. Works in a non-verbal medium, e.g., painting, film, music

*Note: Category "A" can include courses from a national literature or area studies department, or any course in which works are read in a language other than English (e.g., History 1324: French Social Thought from Durkheim to Foucault).*

**OTHER INFORMATION**

All courses must be letter graded and must be passed with a grade of B or above. Freshman Seminars may not be counted towards the fulfillment of the above requirements. However, students may count toward secondary field requirements courses taken while studying abroad, as well as courses taken at the Harvard Summer School. Students pursuing a secondary field in Comparative Literature will receive preferential access to Comparative Literature courses with limited enrollment.

**ADVISING RESOURCES AND EXPECTATIONS**

All students interested in pursuing a secondary field in Comparative Literature should contact the Director of Undergraduate Studies, Dr. Sandra Naddaff (617-495-5650, snaddaff@fas.harvard.edu), as soon as possible to discuss their program of study. Since only Comparative Literature students are allowed to enroll in Comparative Literature 97, students pursuing a secondary field in Comparative Literature should contact the Director of Undergraduate Studies before the first meeting of the sophomore tutorial. The DUS will be responsible for advising these students, although the expectation will be that students working toward a secondary field in Comparative Literature will monitor their own progress toward fulfillment of the requirements.

# Computer Science

Information technology and computation has had a profound impact on many aspects of society, health care, and the scientific disciplines. As such, a foundation of formal training in computer science can benefit undergraduate concentrators in many fields of the natural sciences, social sciences, and humanities. To provide this training, a secondary field in Computer Science requires that students with primary interests in other fields take four courses in computer science.

**REQUIREMENTS: 4 courses (16 credits)**

Any four computer science courses satisfying:

- At most two courses from the set CS 20, CS 50, CS 51, and CS 61.
- All other courses must be numbered CS 100 or higher.

Computer science 50 will count for secondary credit if it is taken for a grade of SAT, but all other courses must be taken for a letter grade, and the student must achieve a grade of C- or better in each of these courses.

*Only courses with a Harvard Computer Science course number may be counted for secondary field credit*. In particular no courses from other Harvard programs/departments, no MIT courses, no study abroad courses and no Freshman Seminars may be counted toward secondary requirements. Computer Science courses offered by the Harvard Summer School may be used for a Secondary Field in Computer Science only if they would count for concentration in Computer Science. A course from another Harvard program/department counts only if it also has an appropriate Harvard Computer Science course number (e.g., a Statistics course that also has a Computer Science course number 100 or greater). Only one course may double count for a secondary field and concentration.

**ADVISING RESOURCES AND EXPECTATIONS**

Questions concerning this secondary field should be addressed to the Directors of Undergraduate Studies in Computer Science (cs-dus@seas.harvard.edu). The Directors of Undergraduate Studies are available to help students choose computer science courses that best meet their interests and objectives. Transfer students who wish to use some of their coursework in their prior institution towards secondary credit should contact the computer science Directors of Undergraduate Studies.

## Earth and Planetary Sciences

Almost every practical aspect of society—population, environment, economics, politics—is and will be increasingly impacted by our relationship with the Earth. Students with a natural curiosity about the Earth's or another planet's dynamic systems should consider studying in the Department of Earth and Planetary Sciences (EPS).

The EPS secondary field is intended to allow students to sample broadly across the offerings or for students who have sufficient preparation in physics, chemistry, and mathematics to provide a strong foundation in a subfield of Earth science (atmospheric and ocean science, energy and climate, environmental geoscience, geobiology, geochemistry, geology, planetary sciences, and solid earth geophysics). The EPS department covers a wide range of pure and applied scientific topics, and therefore consultation with a faculty adviser will be required for secondary field students. Secondary field students will be required to take the departmental tutorial, an ongoing series of lectures by faculty scheduled periodically through the academic year. The tutorial exposes concentrators and secondary fielders to the breadth of Earth and Planetary Sciences and provides a setting for students to get acquainted with one another and with members of the faculty.

**REQUIREMENTS: 5 courses (20 credits) and department tutorial**

1. *Required courses*: A total of five EPS courses.
    1. A minimum of 2 foundational courses from either EPS 10 or GENED 1018, 1070, 1085, 1094,1098, 1137, 1158, and 1167, and all 50-level EPS courses. NB: No more than one of these from EPS 10 or GENED 1018, 1070, 1085, 1094,1098, 1137, 1158, and 1167. Ordinarily, in order for a GENED course to count toward concentration credit, a student should take it prior to enrolling in any EPS courses.
    2. Three additional courses in EPS.
2. *Departmental tutorial*. Non-credit. Generally taken in the first year of declaring.

**OTHER INFORMATION**

Freshman Seminars do not count toward secondary field credit.

All courses must be taken for a letter grade in order to count toward secondary field concentration credit and normally C- is the minimum acceptable grade.

An important aspect of the EPS concentration is participation in field trips and/or summer and January field camps, supported by the department. These opportunities will be available to secondary field students on a space-available basis, after placement of concentrators.

**ADVISING RESOURCES AND EXPECTATIONS**

Students will submit an EPS form to become a secondary field student as early as possible but no later than the course enrollment deadline of their penultimate term; the department will then assign a faculty member to be an adviser. This form can be found on department's website; paper copies are available from the Academic Programs Manager. The Academic Programs Manager will also provide guidance on course selection, as well as review student records to certify completion of requirements. Once the course requirements have been fulfilled, students will follow the FAS procedures to confirm in my.harvard that requirements have been met.

The Department of Earth and Planetary Sciences wants to encourage students who are pursuing a secondary field in EPS to become full citizens of the department. Secondary field students will be invited to all events and activities currently open to concentrators to provide opportunities for all EPS concentrators to get acquainted with one another and with members of the faculty.

Students interested in pursuing a secondary field in Earth and Planetary Sciences should contact Head Tutor Professor Miaki Ishii, Geological Museum 202C, 617-384-8066, ishii@eps.harvard.edu;

or Academic Programs Manager Chenoweth Moffatt, moffatt@eps.harvard.edu, 617-384-9760, Hoffman Labs Room 402.

## East Asian Studies

The East Asian Studies (EAS) secondary field allows students whose primary concentration is not EAS to obtain an in-depth knowledge of one or more aspects of the culture and societies of East Asia (China, Korea, Japan). Students will select, in consultation with an academic adviser, a coherent set of classes from the rich offerings of the Department of East Asian Languages and Civilizations (EALC) and other departments at Harvard that offer classes on East Asian topics.

Students are not required to focus on a specific area, but suggested paths within the secondary field of East Asian Studies include: Modern and Contemporary East Asian Studies, Chinese Studies, Japanese Studies, Korean Studies, Chinese History, Japanese History, Korean History, Chinese Literature and Arts, Japanese Literature and Arts, Korean Literature and Arts, and East Asian Buddhism.

**REQUIREMENTS: 6 courses (24 credits)**

1. EAS 97ab: Introduction to East Asian Civilizations (Sophomore Tutorial, spring).
2. One introductory course from the list below:
    1. Aesthetic and Interpretive Understanding 35: Korea Indigenous
    2. Aesthetic and Interpretive Understanding 36: Buddhism and Japanese Culture
    3. Aesthetic and Interpretive Understanding 39: Old Tales for New Times: The Appropriation of Folklore in Modern and Contemporary China
    4. Culture and Belief 11: Medicine and the Body in East Asia and in Europe
    5. Culture and Belief 33: Introduction to the Study of East Asian Religions
    6. Culture and Belief 40: Popular Culture in Modern China
    7. Ethical Reasoning 25: Confucian Humanism: Self-Cultivation and Moral Community
    8. Ethical Reasoning 18: Classical Chinese Ethical and Political Theory
    9. General Education 1136 Power and Civilization: China (formerly SW 12)
    10. History 1023 Japan in Asia and the World (formerly SW 13)
    11. General Education 1100 The Two Koreas in the Modern World (formerly SW 27), Societies of the World 37: The Chinese Overseas
    12. Societies of the World 45: Beyond the Great Wall: China and its Nomadic Frontier
    13. Or another general survey course concerning East Asian history with the written permission of the Director of Undergraduate Studies
3. At least one, but preferably two, 100-level courses offered by EALC. 100-level language courses do not satisfy this requirement, but students may apply to substitute a 100-level class with an East Asia emphasis offered by another department at Harvard.
4. The remaining courses can be selected from any subjects related to East Asia to make a total of six courses for secondary field credit.
5. *Please note*: Up to two classes in an East Asian language may count toward the required six courses. The secondary field does not, however, require any language courses.

**OTHER INFORMATION**

Courses for the secondary field may be offered by EALC or by other departments at Harvard, as long as the emphasis of the course is clearly on an East Asian subject. Courses offered in other departments that are taught by EALC faculty automatically count for credit for the secondary field, as do courses that are cross-listed in the EALC course search in courses.my.harvard.edu. Others must be approved by the department.

General Education courses on East Asia can be counted for secondary field credit. Relevant Harvard Summer School courses and study abroad courses may be counted with permission of the Director of Undergraduate Studies.

All courses must be letter-graded, with the exception of one Freshman Seminar related to an East Asian

subject and one course that may be taken Pass/Fail with special written permission from the Director of Undergraduate Studies. EAS 97ab may not be taken Pass/Fail.

Students who are primarily interested in enhancing their language skills in one of the East Asian Languages—Chinese, Korean, Japanese, Vietnamese—should consider a language citation. Information on language citations can be obtained by emailing eal@fas.harvard.edu.

**ADVISING RESOURCES AND EXPECTATIONS**

Those students interested in a secondary field in East Asian Studies should contact the EAS Undergraduate Office at eas@fas.harvard.edu or by calling 617-495-8365.

# Economics

Economics is a social science that covers a broad subject matter in seeking to understand the social world. An economic analysis begins from the premise that individuals have goals and that they pursue those goals as best they can. Economics studies the behavior of social systems—such as markets, corporations, legislatures, and families—as the outcome of interactions through institutions between goal-directed individuals. Ultimately, economists make recommendations that they believe will make people better off.

Traditionally, economics has focused on understanding prices, competitive markets, and the interactions between markets. Important topics such as monopolies and antitrust, income inequality, economic growth, and the business cycle continue to be central areas of inquiry in economics. Recently, though, the subject matter of economics has broadened so that economists today address a remarkable variety of social science questions: Will school vouchers improve the quality of education? Do politicians manipulate the business cycle? What sort of legal regime best promotes economic development? Why do cities have ghettos? What can be done about grade inflation? Why do people procrastinate in saving for retirement—or in doing their homework?

Economics today is a scientific discipline. Bringing their particular perspective to social science questions, economists formulate theories and collect evidence to test these theories against alternative ideas. Doing economic research involves asking questions about the social world and addressing those questions with data and models, employing mathematical and statistical tools whenever possible to aid the analysis.

An undergraduate education in economics focuses on learning to analyze the world in terms of tradeoffs and incentives—that is, to think like an economist.

**REQUIREMENTS: 6 courses (24 credits)**

1. Economics 10a and 10b: Principles of Economics (2 courses).
    1. *Note:* All students are required to take Economics 10a and 10b, the introduction to current economic issues and to basic economic principles and methods.
    2. *Note:* Students with Economics AP scores of 5, or A levels or IB scores of 7, may choose to skip either/both parts of Ec 10. However, they must replace each semester of Ec 10 that is skipped with one elective course in Economics. Consult the Economics Concentrator Handbook or a concentration adviser for details.
2. One course from:
    1. Economics 1010a/1011a: Intermediate Microeconomic Theory
    2. Economics 1010b/1011b: Intermediate Macroeconomic Theory
        1. *Note*: These intermediate theory courses teach the analytical tools that economists use. The 1011 courses assume a background in multivariate calculus whereas the 1010 courses have a prerequisite of single variable calculus. A minimum grade of B- is required.
3. Three courses from the Economics course catalog, available on my.harvard.edu.
4. *Note*: All Economics courses and cross-listed courses in the department are eligible, except for Economics 910r: Supervised Reading and Research; Economics 970: Sophomore Tutorial; Economics 985 and Economics 990 senior thesis seminars; and some graduate-level research workshops and seminars. In particular, taking both 1010a/1011a and 1010b/1011b meets

requirement 2 above, as well as one of the three courses in requirement 3.

5. *Note*: In contrast to students who are concentrating in Economics, there is no requirement to take economics courses that fulfill a writing requirement or that have intermediate theory as a prerequisite.

**OTHER INFORMATION**

All courses counting for secondary field credit must be taken for a letter grade.

Courses given in other FAS departments or other Harvard faculties may not be used for credit in the secondary field, unless they are explicitly cross-listed or jointly offered in the Economics course catalog on my.harvard.edu. The only exception is that one of Statistics 100, 104, 109, 110, Applied Math 101, or Math 154 qualifies as one of the three courses under requirement 3.

Students may take either one approved Harvard Summer School class listed on the Economics Summer School webpage or one approved study abroad course or one approved cross-registered course at MIT to meet a course requirement for the secondary field. Courses from study abroad and at MIT are approved at the department's discretion as outlined on the Economics Study Abroad webpage. Please note: Due to COVID-19, the Economics Department is allowing secondary field students in the Classes of 2021, 2022, and 2023 to count more Harvard Summer School Classes towards the Economics concentration. Please see the Economics Summer School webpage for details.

Freshman Seminars may not be used for credit in the secondary field.

Students pursuing a secondary field in Economics are not given preferential access to limited enrollment courses.

Only one course may double-count towards both your concentration and your secondary field. This is a Harvard College policy.

More details on the Secondary Field webpage.

**ADVISING RESOURCES AND EXPECTATIONS**

Students may visit the concentration advisers in the Economics Undergraduate Advising Offices in Littauer 109-116 from 10am-4pm, Monday-Friday for advice about the program, course selection, and more. The Undergraduate Program Coordinator (econupc@fas.harvard.edu) is also available for general inquiries. One of the concentration advisers must sign the final form for secondary field credit. The secondary field form and more information are available on the Department's Secondary Field webpage.

*Note: If the College is under remote instruction, the advisers will continue to hold their usual office hours via Zoom. Details on the Economics Advising Webpage.*

# Educational Studies

The Educational Studies secondary field offers students an opportunity to examine education from multiple disciplinary perspectives. Education is an intentional intervention in human development. For as long as we know, human beings have been interested in how to shape children into adults who understand cultural values and can contribute to the needs of the community. In modern societies, education is seen as a prime lever for a number of key (and sometimes conflicting) goals, such as increasing national economic competitiveness, supporting upward mobility, improving public health, increasing civic engagement and achieving global understanding. In addition, defining features of contemporary life, such as the proliferation of digital technologies and global migration, have significant implications for education. As a result, questions about education are central to number of academic disciplines, including psychology, sociology, economics and government. The Education Studies Secondary leverages this multidisciplinary interest in education and allows students to create a coherent program of study from courses offered across the University.

Students pursuing the secondary field may explore a broad overview including course work related to individual learning, schools as organizations, the role of education in society and educational policy.

Alternatively, students may choose to focus in depth on a particular aspect of education such as social stratification, literacy, childhood and adolescence, or policy. Students are encouraged to be in touch with the Director of the secondary field for help developing a plan of study.

**REQUIREMENTS: 5 courses (20 credits)**

1. One foundational course, from an approved list of courses.
2. Four additional courses related to education from an approved list of courses (or approved through petition).
    1. *Note*: Three of the five courses must be offered by distinct academic units (departments or schools). A list of approved courses in education is available at Educational Studies secondary field website.
3. A capstone project related to education. This can include:
    1. Writing a senior thesis on a topic related to education
    2. Taking a course on education that requires a significant research project
    3. Writing a research paper related to education while enrolled in a supervised reading and research course.
    4. Working in a laboratory or as a research assistant on a study related to education.
    5. Completing an extracurricular project that involves significant learning and reflection.

*Note*: The capstone project must be approved by the Director of the secondary field. It can be undertaken in one of the five courses satisfying requirements for the secondary field or in another course not counting toward the secondary field. The Director of the secondary field can help identify and arrange opportunities for the capstone project.

**OTHER INFORMATION**

Students will be encouraged to declare their interest in the Secondary Field in Educational Studies during their Junior year and may not declare after November 1 of their Senior year.

Due to FAS regulations, students may double count only one course toward both their secondary field and their concentration.

Although it is possible to fulfill the program requirements solely with FAS courses, most students will likely take one or two courses from professional schools. Consistent with the FAS regulations on cross-registration, students will be able to count no more than 2 courses (8 credits) towards their degree.

**ADVISING RESOURCES AND EXPECTATIONS**

For additional information and advice about the program and course selection, students may contact the Faculty Director, Professor Julie Reuben ( julie_reuben@harvard.edu) or the Program Administrator, Matt Tallon (matthew_tallon@gse.harvard.edu). Additional information can be found on the Educational Studies secondary website (https://edsecondary.fas.harvard.edu/).

# Energy and Environment

www.espp.fas.harvard.edu

The energy-environment challenge is a defining issue of our time, and one of Harvard's greatest contributions to meeting that challenge will be the education of a new generation of leaders in science, business, law, design, and public service. To this end, the Environmental Science and Public Policy (ESPP) program, in coordination with the Harvard University Center for the Environment (HUCE), is pleased to offer the secondary field in Energy and Environment (E&E). Through coursework and a colloquium, students engaged in the E&E secondary field will increase their exposure to, and literacy in, the interdisciplinary nature of issues related to energy and the environment.

In the context of the E&E secondary field, 'Energy' refers to the production, distribution, and use of energy by individuals and society for a variety of purposes. This includes the various technologies, policies, and challenges associated with meeting increasing global energy demands. 'Environment' refers to the understanding of the relationships and balances of the natural and constructed world at

multiple scales, including how anthropogenic activities and policies affect the relationships between energy demand, environmental quality, and climate change.

Students from a wide range of concentrations, including the humanities, are invited to participate in the program to explore how different disciplinary perspectives on energy and environment intersect and inform one another. For example, a student concentrating in English may wish to increase their knowledge of the environment and energy in the context of environmental literature or history. A student studying global health may want to better understand the impacts of climate change on water resources, nutrition, and human health. Or, a student in the physical sciences may want to expand their training by improving their understanding of climate dynamics and energy production to support their interest in materials science and energy storage. All participating students share exposure to the core issues related to climate change, the consequences of energy choices, and changes in our physical and biological environment, preparing them to make informed professional and personal decisions about some of the most pressing societal challenges of the 21st century.

**REQUIREMENTS: 4 courses (16 credits) and colloquium participation**

The E&E secondary field requires the successful completion of 4 courses, including one foundational course and three upper-level courses. Students must also participate in a program colloquium, as outlined below.

**Students choose one of the following foundational courses**, all of which include content related to both energy and environment:

- GE 1085 Energy Resources and the Environment
- GE 1094. The Climate-Energy Challenge
- GE 1137 The Challenge of Human Induced Climate Change: Transitioning to a Post Fossil Fuel Future
- ESPP 11. Sustainable Development
- ESE 6. Introduction to Environmental Science and Engineering

**Students must choose three additional upper-level courses.**
At least one course must be chosen from each of two elective categories: Social Sciences and Humanities, and Natural Sciences and Engineering. The complete list of course options can be found on the ESPP website.

**Colloquium**
During each semester there are several opportunities for E&E secondary field students to come together to explore various energy and environmental topics through facilitated discussions. Some colloquia will require preparatory readings and others will require prior attendance at a public lecture on campus. Students are required to attend at least one colloquium each semester, beginning at the time of their acceptance into the program.

**OTHER INFORMATION:**
Students must declare their engagement in this secondary field no later than course enrollment deadline of their sixth term and are required to complete an application form.

Students may petition the ESPP Head Tutor, in advance, for the approval of any exceptions to the course options for the secondary field, including courses offered in Study Abroad programs, at the Harvard Summer School, or any of Harvard's other schools.

Freshmen seminars do not count toward secondary field requirements. All courses counting towards the E&E secondary field must be taken for a letter grade. A grade of "C" or better is required for secondary field credit.

**ADVISING RESOURCES AND EXPECTATIONS:**

The ESPP Head Tutor, Professor Noel 'Missy' Holbrook (holbrook@oeb.harvard.edu), or the Secondary Field Administrator, Lorraine Maffeo (maffeo@fas.harvard.edu), are available for advice about the secondary field. Students will be assigned an adviser following their submission of an anticipated course of study.

# English

The Department of English offers one secondary field for non-concentrators. It is designed to be flexible enough to accommodate every kind of interest in this broad field.

The requirements detailed below apply to students declaring a secondary field in English beginning in academic year 2020-21. Students declaring the secondary field prior to 2020-21 should consult the relevant archived version of the *Handbook for Students* and contact the department for further information.

**REQUIREMENTS: 6 courses (24 credits)**

**English 20: Literary Forms**. This course introduces students to genre and to how genres respond to changes in the world.

**Five Electives**: Five more courses taught by English Department faculty complete the requirements. Three of these courses are guided electives, courses on any subject that introduce students to the variety of writers and genres that make up the 1300-year tradition of literature in English:

- One must primarily address texts written before 1700
- One must primarily address texts written between 1700 and 1900
- One must primarily address texts written between 1900 and 2000
- Two courses are open electives and may be creative writing workshops

**OTHER INFORMATION**

The six courses may be taken in any sequence. With the exception of Freshman Seminars taught by English Department faculty, each course must be taken for a letter grade, with a minimum grade of C-. The six required courses must be completed by the end of the senior year.

**ADVISING RESOURCES AND EXPECTATIONS**

Students pursuing a secondary field are urged to seek out members of the English Department faculty for advice on their specific course choices. For general information about the department, its faculty, and its courses, please visit the department website.

For more information on the secondary field and for advising, please speak to the Undergraduate Program Assistant/Secondary Field Coordinator, Henry Vega Ortiz.

# Environmental Science and Public Policy

www.espp.fas.harvard.edu

The Environmental Science and Public Policy (ESPP) secondary field provides students with a multi-disciplinary introduction to the complex environmental challenges confronting society today. These challenges require an understanding of the underlying scientific and technical issues, as well as an appreciation for the relevant economic, political, legal, historical and ethical dimensions.

Students become well-versed in the broad, interconnected issues of environment and public policy through course work and a colloquium. Students choose courses in biology, chemistry, earth and environmental sciences, economics, government, engineering, and mathematics, complementing their primary studies with courses that will provide balanced exposure to environmental science and policy perspectives.

**REQUIREMENTS: 5 courses (20 credits) and colloquium participation**

The ESPP secondary field requires the successful completion of 5 courses, including one foundational course and four upper-level courses. Students must also participate in a program colloquium, as outlined below.

**Students choose one of the following foundational courses:**

- ESPP 11. Sustainable Development
- EPS 50. The Fluid Earth: Oceans, Atmosphere, Climate and Environment
- ESE 6. Introduction to Environmental Science and Engineering
- GE 1085 Energy Resources and the Environment
- GE 1094. The Climate-Energy Challenge
- GE 1137 The Challenge of Human Induced Climate Change: Transitioning to a Post Fossil Fuel Future

**Students must choose at least four additional upper-level courses.**

At least two courses must be chosen from each of two elective categories: Social Sciences and Public Policy, and Natural Sciences and Engineering. The complete list of course options can be found on the ESPP website.

**Colloquium**

During each semester there will be several evening discussion sessions that are intended specifically to engage ESPP secondary field students in discussion with Harvard faculty. Some will require preparatory readings and others will require prior attendance at a public lecture on campus. Students will be required to attend at least one session for each semester once they have been accepted into the program.

**Other Information:**

Students must declare their engagement in this secondary field no later than course enrollment deadline of their sixth term and are required to complete an application form.

Students may petition the ESPP Head Tutor, in advance, for the approval of any exceptions to the course options for the secondary field. Substitutions with courses offered in Study Abroad programs, at the Harvard Summer School or any of Harvard's other schools may with prior permission count toward the secondary field requirements.

Freshmen seminars do not count toward secondary field requirements. All courses counting towards the secondary field must be taken for a letter grade. A grade of "C" or better is required for secondary field credit.

**ADVISING RESOURCES AND EXPECTATIONS**

The ESPP Head Tutor, Professor N. Michele Holbrook (holbrook@oeb.harvard.edu), or Lorraine Maffeo, Program Administrator, (maffeo@fas.harvard.edu), are available for advice about the secondary field. Students will be assigned an adviser following their submission of an anticipated course of study.

# Ethnicity, Migration, Rights

The secondary field in Ethnicity, Migration, Rights (EMR, formerly Ethnic Studies) offers students an opportunity to pursue sustained, interdisciplinary study of ethnicity, migration, indigeneity, and human rights, with special attention to Asian American and Pacific Islander, Latinx, Muslim American, and Native American studies. Courses in EMR are taught by faculty from humanities and social science disciplines across the FAS and other Harvard schools.

Study in EMR allows students to explore our core areas from a variety of disciplinary and interdisciplinary perspectives. Students who decide to pursue the secondary field can choose from a wide range of courses under the guidance of the Administrative and Program Director and members of the Faculty Advisory Committee. Given the relevance of EMR topics to both local and global issues, the secondary field both encourages and provides opportunities for interacting directly with local

communities and working outside the traditional classroom.

The secondary field in EMR offers opportunities to focus in a meaningful way in the areas of ethnicity, migration, indigeneity, and human rights. Students may take courses in several of these areas or choose to focus on one or two of these tracks. A specialty track in Latino Studies is available.

**REQUIREMENTS: 5 courses (20 credits)**

The Committee offers two secondary field pathways. Students must complete FIVE courses from the approved course list, which can be found in the course search in courses.my.harvard.edu and on the EMR website.

**Ethnicity, Migration, Rights**

*The general pathway in EMR requires five courses (20 credits).*

1. *One Portal Course*. Courses designated as Portal Courses are meant to give students an overview of one or more of our core areas. Many Portal Courses are taught by EMR committee members. On occasion, a student may be granted permission to use another course from the list as a Portal Course. Students wishing to discuss this option should do so with the Administrative and Program Director.
2. Four additional courses must be taken, two of which must be above the introductory level.
3. At least one course must have a transnational, comparative, or global focus.

**Latino Studies**

The goal of this secondary pathway is to support study of the experiences, cultures, and traditions of knowledge of Latinx communities in the United States with attention to history, language, demographics, legal rights, and immigration.

*Five courses (20 credits) are required.*

1. *One Portal Course in Latinx Studies*. Courses designated as Portal Courses are meant to give students an overview of one or more of our core areas. Many Portal Courses are taught by EMR committee members. On occasion, a student may be granted permission to use another course from the list as a Portal Course. Students wishing to discuss this option should do so with the Administrative and Program Director.
2. *Three elective courses in Latinx Studies*. Two of these electives must be above the introductory level.
3. *One comparative course*. Comparative courses should consider study of ethnicity and culture from another perspective, which may include the study of another ethnic group within the United States or another globally comparative framework.

*Note: A maximum of two courses in Latin American Studies may count towards the secondary field.*

**OTHER INFORMATION**

Four of the five courses must be taken for a letter grade and passed with a B- or better. One course, including approved Freshman Seminars, may be taken Pass/Fail or SAT/UNS.

Courses related to the fields of EMR from study abroad, Harvard Summer School, and other Harvard schools may count toward the secondary field with approval by the Administrative and Program Director.

Harvard College policy states that only one course may be double-counted for concentration credit and secondary field credit. There is no limit to the number of courses that can be double-counted for secondary field credit and General Education credit.

Students should consult with the Administrative and Program Director for guidance in choosing appropriate courses or to request approval for course exceptions.

**ADVISING RESOURCES AND EXPECTATIONS**

To declare your interest in pursuing the secondary field in EMR, please go online and follow the prompts

of the Secondary Field Web Tool.

Students considering the secondary field should consult with the Administrative and Program Director at eleanor_craig@fas.harvard.edu as soon as possible.

Students working towards a secondary field in EMR can reach out to members of the Faculty Advisory Committee for guidance on course path, extracurricular options, and other questions. See the EMR website for a list of affiliated faculty members and course catalog archives.

## European History, Politics, and Societies

The Secondary Field in European History, Politics, and Societies (EHPS) offers students the opportunity to pursue an interdisciplinary course of study focused on modern Europe, in particular its politics, economics, history, and social and cultural developments.

While the EHPS rests mainly on courses from the social science disciplines, it also includes those considering Europe in a comparative context as well as courses covering a specific period or region of Europe. In addition, it provides for a humanistic inquiry of Europe reflecting its diverse cultural and linguistic heritage through a broad array of courses from the humanities departments.

This interdisciplinary structure allows for multiple paths of research and specialization, and accommodates a variety of approaches in a study of Europe. The Secondary Field is based at the Minda de Gunzburg Center for European Studies (CES), the locus of innovative research on European history and contemporary affairs. As members of the EHPS cohort, students also are integrated into CES programming such as the Lectures, Conferences and Seminar series, the Europe in Washington Workshop, the CES Student Society, etc.

**REQUIREMENTS: 6 courses (24 credits)**

1. A minimum of three courses must be in social science disciplines (anthropology, economics, government, history, sociology or social studies).
2. The six courses must come from at least two different departments/disciplines.
3. A minimum of three courses must be regular departmental courses (i.e., not General Education courses, Freshman Seminars, or House Seminars).
4. One course of relevant language study on intermediate or advanced level may count towards the secondary field.

**OTHER INFORMATION**

For more information, visit the EHPS website of the Minda de Gunzburg Center for European Studies (CES). All courses must be taken for a letter grade and completed with a grade of B- or above, with the exception of Freshman Seminars, which may be applied toward the secondary field with a grade of SAT. Students may petition the EHPS Coordinator to potentially receive credit for courses which may be relevant to the program of study but are not listed as part of the approved courses, including one course of credit taken through Harvard's Summer Study Abroad Program. (*Please note: Relevant courses taken during spring 2020 term under the Emergency grading system will qualify for the EHPS with a grade of SAT*).

**ADVISING RESOURCES AND EXPECTATIONS**

To declare your interest in pursuing the secondary field in European History, Politics, and Societies (EHPS), please follow the prompts of the Secondary Field Web Tool. We recommend that students register for the field as early as possible in order to take advantage of the rich program of lectures offered by the Minda de Gunzburg Center for European Studies (CES) as well as internships, thesis workshop and funding. Students considering this specialization should consult with the CES Program Manager Vassilis Coutifaris (coutifaris@fas.harvard.edu) to discuss a selection of courses and interests, and to connect with the relevant faculty members.

# Folklore and Mythology

> Folklore is a body of traditional belief, custom, and expression, handed down largely by word of mouth and circulating chiefly outside of commercial and academic means of communication and instruction. Every group bound together by common interests and purposes, whether educated or uneducated, rural or urban, possesses a body of traditions which may be called its folklore. Into these traditions enter many elements, individual, popular, and even "literary," but all are absorbed and assimilated through repetition and variation into a pattern which has value and continuity for the group as a whole.
>
> -Benjamin A. Botkin, 1938.

Folklore and Mythology as a discipline focuses on the study of society, past or present, through its cultural documents and artifacts—its folklore—and uses a variety of methodologies drawn from the humanities and social sciences to understand them. To concentrate on a society's folklore and mythology (on sub-national as well as national levels) is to understand its traditional self-definition through its myths, epics, ballads, folktales, legends, beliefs, and other cultural phenomena, including music, song, and dance. Studying a group's folklore shows how it identifies itself in relation to other groups.

Inherently interdisciplinary, the study of Folklore and Mythology often draws resources from several disciplines, while maintaining its own methodological lens. Students wishing to meet the requirements for a secondary field in Folklore and Mythology must take GENED 1097: Tradition, Performance, and Culture, one of the F&M topical seminars in the field, and three other courses chosen from Folklore and Mythology and/or cross-listed courses as listed in courses.my.harvard.edu and on the Folklore and Mythology website.

To guarantee a focused and coherent program of study in Folklore and Mythology as a Secondary Field, **interested students should make an appointment with the Head Tutor as soon as possible**. Students who notify the Head Tutor early on of their intention to pursue a secondary field in Folklore and Mythology will ensure that they are invited to special lectures, film showings, lunches, excursions, and receptions.

**REQUIREMENTS: 5 courses (20 credits)**

1. GENED 1097: Tradition, Performance, and Culture. Explores major forms of folklore (e.g., myths, legends, beliefs, rituals, festivals), as well as the theoretical approaches (e.g., performance theory, the ethnography of communication) used to interpret cultural documents drawn from the world of traditional expression and ritualized behavior. (Mitchell)
2. One Folklore and Mythology seminar, each of which examines a specific topic in the field.
3. Three courses from among those offered in Folklore & Mythology or the cross-listings.

**OTHER INFORMATION**

With the exception of approved Freshman Seminars, all courses must be taken for a letter grade. Grades should be B- or above. Harvard Summer School courses and study abroad courses taught by department faculty may count towards the secondary field. Students may petition the program to count, at most, one study abroad course taught by non-department faculty by presenting the syllabus and papers from the course to the Head Tutor or Chair.

Secondary field students, who have officially recorded their intention, are often granted preferential access to limited enrollment courses. Individual faculty members will determine the priority of enrollment.

**ADVISING RESOURCES AND EXPECTATIONS**

Students are encouraged to meet with the Head Tutor, Dr. Lowell Brower (labrower@fas.harvard.edu) or the Chair, Professor Stephen Mitchell (samitch@fas.harvard.edu). By doing so and by notifying the program using the secondary fields web tool, they will not only receive advice on courses, they will also be invited to concentration activities and events. Students may also contact Department Administrator

Holly Hutchison at hhutchis@fas.harvard.edu for information.

## Germanic and Scandinavian Studies

German is the second most spoken language in all of Europe, the most prevalent native language in the European Union, and the third most-taught foreign language worldwide. The rich cultural, intellectual, and scientific tradition of the German-speaking nations makes this a popular secondary field for students concentrating in art history, history of science, linguistics, literature, music, philosophy, psychology, religion, social studies, sociology, and the other language and literature fields. The role of the German-speaking nations in world history, their economic significance, and their crucial role in the politics and economics of the European Union give German particular relevance for students concentrating in history, government, or economics. Present-day Germany offers important perspectives on such issues as globalization and multi-culturalism. For these reasons, students in any undergraduate concentration who have attained a good working knowledge of German may wish to explore German cultural and intellectual history in greater depth, while also achieving greater fluency in the language.

Spoken by some twenty-five million inhabitants of northern Europe, the Scandinavian languages are official national languages in five countries (Denmark, Finland, Iceland, Norway, and Sweden), as well as three autonomous regions (the Åland Islands, the Faroe Islands, and Greenland). Famed for the Icelandic sagas and other heroic legacies of the Viking Age, medieval Scandinavian literature is among the most renowned of the European Middle Ages, while modern Nordic culture boasts many world-class writers, artists, designers, and filmmakers— e.g., Henrik Ibsen, August Strindberg, Edvard Munch, Alvar Aalto, Ingmar Bergman, Lars von Trier. Known for their leadership in international development issues, peace negotiations, and sustainability initiatives, as well as their domestic social experiments, the Nordic countries often have held a prominent place on the modern world stage and offer students excellent opportunities for cross-cultural perspectives and research.

The Department of Germanic Languages and Literatures offers courses in German, Nordic languages, and English on topics of cultural and historical interest. Important figures such as Marx, Freud, Nietzsche, and Kafka are the subject of regular lecture courses, as are such topics as the Vikings and the Nordic heroic period, the German colonial imagination, Nazi film, Nordic cinema, and Germanic folklore. Smaller, discussion-type courses cover the age of Goethe, nineteenth-century Realism, the relationship between Germany and the European Union, America in the German mind, German music, German and Scandinavian drama, and much more.

This secondary field is designed to be as flexible as possible so that individual students, with the help of the Director of Undergraduate Studies, can construct the most meaningful program for their needs.

**REQUIREMENTS: 5 numbered courses (20 credits)**

Two of the five courses must be at the 100 level or above.

Three of the five courses must be ones in which all texts are read in the original language.

**OTHER INFORMATION**

Up to two General Education courses regularly offered by faculty in the department may count toward the secondary field. However, only one class can count towards both Gen Ed and the secondary field. Freshman seminars taught by members of the department count toward the secondary field. Courses should be selected from those listed and cross-listed under Germanic Languages and Literatures in the course search in the Courses of Instruction. Appropriate substitutions may be made with permission of the DUS.

In consultation with the DUS, all levels of less commonly taught Germanic and Nordic languages (e.g., Swedish, Danish, Norwegian, Yiddish, Icelandic, or Finnish) may be counted towards the secondary field.

With the exception of one approved Freshman Seminar (which must receive the grade of SAT), all courses must be taken for a letter grade and cannot be taken Pass/Fail; a grade of B- or better is required for these courses to count towards the secondary field.

Harvard Summer School courses and study abroad courses may be counted upon approval of the Director of Undergraduate Studies.

**ADVISING RESOURCES AND EXPECTATIONS**

Students interested in pursuing a secondary field should contact the Director of Undergraduate Studies for German, Dr. Lisa Parkes (lparkes@fas.harvard.edu, 617-495-3548); or the Director of Undergraduate Studies for Scandinavian, Dr. Agnes Broomé (agnesbroome@fas.harvard.edu, 617-496-4158).

# Global Health and Health Policy

The incidence and meaning of disease and injury, the quality and cost of health care services to prevent and treat those diseases and injuries, the variable access of citizens to those services, the role of government and politics in the provision and regulation of health care–these fundamental issues and many more are central concerns of health policy in the United States and abroad. Indeed, health care affects the life of every individual, whether through the financing of health insurance, both public and private, the treatment of illness, the care of the frail elderly, the dissemination of information about the health risks of smoking and benefits of exercise and other behaviors that affect health, or the adoption of regulations to reduce human exposure to toxic chemicals in the environment.

A secondary field in Global Health and Health Policy (GHHP) could explore any of these topics within the United States or across the world, moving into such themes as: accountability and governance – the role of the state versus transnational organizations and corporations in global health; the relevance and morality of global socioeconomic inequality in health; the risk of pandemic diseases and their economic and psychological impact on populations; the consequences of political change in a country's health; and the challenges resulting from complex emergencies and vulnerable populations in fragile states.

The natural sciences, the social sciences, and the humanities all contribute to the study of global health and health policy. Harvard offers many different perspectives and programs concerning health. Students may explore all aspects of health care, health policy, and health science through many perspectives, approaches and subject matters in the health domains that attract students with potentially quite different interests and that provide them with complementary forms of knowledge. Upon completion of the secondary field, GHHP students will know how to actively engage with complex themes from a variety of perspectives, conduct health-related research, and critically think about a spectrum of health issues, both domestic and global.

**REQUIREMENTS: 5 courses (20 credits)**

1. *One foundational course, chosen from the following options:*
    1. GENED 1063: World Health: Challenges and Opportunities
    2. GENED 1079: Why Is There No Cure for Health Care?
    3. GENED 1093: Who Lives, Who Dies, Who Cares: Reimagining Global Health
    4. United States in the World 11: American Health Care Policy (**not currently offered**)
2. *Three additional courses, one course in three of the following eight categories:*
    1. Health Policy
        1. Economics of Health
        2. Ethics of Health
        3. Health and Demography
        4. Health, Culture, and Society
        5. History and Practice of Medicine
        6. Politics of Health
    2. Science of Disease
        1. Engineering Sciences and Statistics
        2. Science of Disease
    3. *Note*: A list of courses in each category is available at the GHHP web site. Note that the eight categories are divided into two areas, Health Policy and Science of Disease. Students are encouraged to take at least one course from both thematic areas.
3. One course to fulfill the research component of the secondary field in global health and health policy. The research component must be on an approved topic. For information on the approval

process and deadlines, please consult the GHHP web site. The research requirement may be fulfilled in one of four ways:

1. Writing a senior thesis pertaining to global health or health policy in one's concentration. One term of the senior thesis tutorial will double count for the concentration and secondary field.
2. Adding a thesis chapter on the global health or health policy implications of a hard science, engineering, or computer science thesis. One term of the senior thesis tutorial will double count for the concentration and secondary field.
3. Writing a research paper related to global health or health policy in GHHP 99: Research in Global Health and Health Policy.
4. Writing a research paper related to global health or health policy while enrolled in a supervised reading and research course (GHHP 91, or a 91r or 901r course in another department; prior approval is required).

**OTHER INFORMATION**

No more than one of the five courses may be non-letter-graded. (Exception: Two courses may be taken non-letter graded if one is the required research component.)

Due to FAS regulations, only one course may double count for a secondary field and concentration.

**ADVISING RESOURCES AND EXPECTATIONS**

We encourage students to notify the program as soon as they have decided to pursue the Secondary Field in Global Health and Health Policy, so that we may keep them informed of important deadlines and policies, events, and research, internship and employment opportunities.

For additional information and advice about the program and course selection, students may contact:

- Christy Colburn, Associate Director, Global Health and Health Policy Undergraduate Program (christy_colburn@harvard.edu)
- Debbie Whitney, Administrative Director, Interfaculty Initiative in Health Policy (deborah_whitney@harvard.edu)

# Government

The Department of Government is an umbrella for a remarkable range of political subjects and approaches to studying them. The department is an umbrella, in part, because political science is not a unified discipline. It stands at the cross-roads of history, law, economics, sociology, philosophy, and ethics. It borrows from these disciplines and constructs theories and methods of its own. Government department faculty teach about China and statistical methods, civic virtue (and corruption), and the logic of congressional committee structures. Like our students, our research is inspired by many things: by the personal experience of participation; by moral outrage; by commitment to exploring a political problem; or by fascination with a model for explaining, measuring, or predicting political outcomes.

Against this background, a secondary field in Government is not one single thing. We encourage students with either specific or eclectic political interests to explore our courses and faculty. There are good reasons to range across areas, institutions, ages, and countries. For students with a focused interest, it may be best to assemble courses that cohere around a single subject or approach. For some students that may mean taking all their courses in a single subfield, such as American politics. Others with a focused interest may construct a program that includes courses from several subfields that are united by subject: perhaps Africa, or international political economy, or political ethics. Models of study for the secondary field are available on the department website.

**REQUIREMENTS: 5 courses (20 credits)**

Students must take 5 courses in the Government Department:

All courses must be taken for a letter grade and passed with a grade of B- or better, except for courses graded SAT/UNSAT (such as Gov 92r or a Freshman Seminar offered by a Government department faculty member).

Only one course grade SAT/UNSAT may be counted towards the secondary.

No courses taken Pass/Fail may count towards the secondary.

No more than two foundational courses (Gov 10, 20, 30, and Gov 40) will be counted toward a secondary field; three courses must be 50 or above.

Gov 91r (Supervised Reading and Research) cannot be used to fulfill Government secondary field requirements.

**Most courses outside the Government Department do not count for the secondary field.** For instance, no HKS classes can be used toward the secondary-field requirement.

**OTHER INFORMATION**

Unlike the requirements for Government primary concentrators, all courses taken for the Government secondary field must have a “Gov” number (except for Gov 91r, which counts for neither the primary nor the secondary field). In addition, there are a small number of outside courses taught by Government Department Faculty that may count towards the secondary field:

FS 42r, FS 70u, FS 71h, FS 71l, FS
71w, GenEd 1008, GenEd 1052, GenEd 1058, GenEd 1119, Soc Stud 98hp, Soc Stud 98nu, Soc Stud 98ox, Soc Stud 98rd. **Please note that this list is different than the list of courses available to concentrators for concentration credit.**

The following classes are no longer offered, but count for the secondary field if previously taken: EMR 13, ER 22, ER 39, ER 44, FS 30v, Soc Stud 98oa, Soc Stud 98of, SW 15, SW 50, USW 15, USW 20, USW 31.

Petitions of any kind for exceptions to Government secondary field requirements will not be accepted.

Secondary concentrators can count only one Harvard Summer School Government course, taught on campus by a Harvard Government Department faculty member, towards their secondary concentration in Government.

Gov 91r (Supervised Reading and Research) cannot be used to fulfill Government secondary field requirements.

Please note that these secondary field requirements differ from those for Government primary concentrators.

**ADVISING RESOURCES AND EXPECTATIONS**

Advising for those with a secondary field in Government will be done through the Undergraduate Program Office and our regular undergraduate advising staff including the Director of Undergraduate Studies, the Concentration Advisers, and administrators. Students interested in pursuing a secondary field in Government or those who have any questions or concerns regarding the secondary field should contact the Government Undergraduate Program Office (govtutorial@gov.harvard.edu; 617-495-3249). The office, located at CGIS Knafel Building, Room K151, 1737 Cambridge St., is open for drop-in advising M-F, 10am -5pm.

# History

The History Department is pleased to offer a robust secondary field in History. The secondary field in History encourages students in other concentrations to learn about the practice of history and engage in it themselves through tutorials and other departmental courses. Students will undertake an individualized plan of study to develop a base of historical knowledge and the essential skills of the field. The historical perspective and tools acquired through the secondary field will give students a richer appreciation for everything they experience in the College and beyond. History informs our understanding of literature, art, politics, and the world around us. While exposing us to the variety of human behavior and

achievements of the past, the study of history also provides insights for the analysis of current issues, including questions of what may be fleeting and what may be enduring.

**REQUIREMENTS: 5 courses (20 credits)**

1. *One seminar*: Ordinarily taken in the junior or senior year, the seminar will serve as a capstone to the secondary field by providing faculty-led instruction in a small group and requiring students to follow the stages of a research project that reflect the principles of the department's tutorial program. A conference course or graduate seminar may be taken in lieu of an undergraduate seminar to meet this requirement.
2. *Four additional courses in history*: Students will be free to take any four courses in history to fulfill the bulk of the secondary field's course requirements. One of the four courses may be a historical related field course (by petition).

**OTHER INFORMATION**

All courses for the secondary field in History must be taken for a letter grade, except for Freshman Seminars (graded SAT/UNS) taken with history department faculty. A minimum letter grade of D- is required in all courses for the secondary field.

*Two types of courses count automatically toward History secondary field requirements:*

1. courses listed under “History” in the course search in courses.my.harvard.edu (including cross-listed courses); and
2. all courses taught by full members of the History Department faculty through the General Education and/or Freshman Seminar programs or through other departments.

The secondary field offers an opportunity to study a particular historical interest or to explore a range of eras, regions, and themes. There may be circumstances in which it would be appropriate to petition for a non-Departmental course to count (known in History concentration parlance as a "related field"); students must consult the History Undergraduate Office about this possibility.

Students may also apply to do an independent study, or History 91r, with a member of the department; the History 91r can be used to fulfill one of the three elective course requirements.

**ADVISING RESOURCES AND EXPECTATIONS**

To discuss whether a secondary field in History is right for you, or for specific program-policy questions, contact the Director of Undergraduate Studies or the Assistant DUS. For general inquiries, please contact Staff Assistant Laura Johnson (lmjohns@fas.harvard.edu) or visit the Undergraduate Office in Robinson 101.

# History of Art and Architecture

The Department of History of Art and Architecture at Harvard University offers the broadest range of courses available in North America today. The faculty offer courses covering the diverse historical and cultural geographies of the world—as well as their points of intersection, dialogue, and exchange—in the fields of African, American, Ancient (Near East, Greek, and Roman), architectural history and theory, Baroque and Rococo, Byzantine, Chinese, South Asian, Islamic, Japanese, Latin American/Pre-Columbian, Medieval, modern and contemporary, photography, and the Renaissance (Northern and Southern). The scope of art and architecture studied is matched in variety by both approaches and methods of study. The secondary field is structured to provide students with a balance between introductory and advanced courses of instruction and to promote understanding of the world's art traditions present and past. The secondary field offers students an opportunity to explore their interest in the history of art and architecture in the broadest of possible terms, or equally to pursue a focused academic interest for its own sake or that complements a course of study in their primary concentration. Courses of study are enhanced by direct access to the collections of the Harvard University Art Museums.

**REQUIREMENTS: 6 courses (24 credits)**

Three courses from the lower level of department offerings, selected from the catalogue range HAA 1 to 89 (these may include Freshman Seminars and General Education courses offered by our faculty, and cross-listed courses).

Three courses from the upper level of department offerings, selected from the catalogue numbers of the HAA 100-200 range. (Students wishing to enroll in a 200-level seminar must request the instructor's permission.)

Of the 6 courses, a balance must be achieved chronologically before or after the year 1700 C.E. by a ratio of 2:4 or 4:2.

**OTHER INFORMATION**

In addition to Freshman Seminars and General Education courses taught by History of Art and Architecture faculty, Harvard Summer School courses in the history of art and architecture may also count towards secondary field credit. Those courses credited for the Secondary in History of Art and Architecture must be led by faculty holding teaching appointment in the HAA Department. There is no grade minimum for courses to count towards the secondary field but, with the exception of Freshman Seminars, courses must be taken for a letter grade. Students pursuing a secondary field will not be given preferential access to limited enrollment courses, which in our concentration are generally undergraduate pro-seminars and seminars for graduate students. In limited enrollment courses, instructors will decide whether or not a secondary field student is admitted to the course based on such factors as level of preparation, stated interest, and/or need.

**ADVISING RESOURCES AND EXPECTATIONS**

Students pursuing the secondary field in History of Art and Architecture are strongly advised to inform the department using the secondary fields web tool and to seek academic advising from the Director of Undergraduate Studies before embarking upon this course of study. Students should contact the Director of Undergraduate Studies by email and meet to discuss their academic interest and objectives. The initial meeting could occur at any stage after the concentration choice has been made, but ideally in the student's fourth or fifth semester. Academic advising and general mentoring in the course of secondary field study will also be provided by the Director of Undergraduate Studies and the Undergraduate Coordinator at the student's request. The Director of Undergraduate Studies is Prof. Joseph Koerner; the Coordinator of Undergraduate Studies is Tom Batchelder (tbatchel@fas.harvard.edu, 495-2310).

# History of Science

The Department of the History of Science offers a secondary field in the History of Science, Technology, and Medicine. This field gives students concentrating in other departments the opportunity to take a coherent cluster of courses in the history of science, technology, and medicine. The program is designed to give students, first, a foundational sense of the field, then, permit them to do more advanced work, including courses that will allow them to focus on particular interests and to do original research and other projects.

**REQUIREMENTS: 5 courses (20 credits)**

1. History of Science 100: Knowing the World: Introduction to the History of Science.
2. Four elective courses in the history of science, ordinarily chosen from the 100-level courses in the History of Science course search in courses.my.harvard.edu.

- 200-level courses may be taken only with the permission of the instructor.
- One Freshman Seminar taught by a department faculty member may be counted as one of the four elective courses.
- Students will be permitted to take one (but no more) of their four elective courses outside the department (cross-listed courses in the History of Science course search in courses.my.harvard.edu count in this category).

**OTHER INFORMATION**

With the exception of Freshman Seminars taught by department faculty members, all courses must be letter-graded. There is no minimum passing grade for courses to count towards the secondary field.

Decisions about whether courses from study abroad, Harvard Summer School, or other Harvard schools will count for the secondary field will be made on a case-by-case basis by the Director of Undergraduate Studies.

In department courses with limited enrollment, first priority will be given to History and Science concentrators; students affirming that they are doing the secondary field in History of Science will have next priority.

**ADVISING RESOURCES AND EXPECTATIONS**

Secondary field advising is offered by Alice Belser, Manager of Student Programs (ajbelser@fas.harvard.edu), and by Professor Anne Harrington, Director of Undergraduate Studies (aharring@fas.harvard.edu).

## Human Evolutionary Biology

Human Evolutionary Biology (HEB) uses an evolutionary framework to investigate why humans are the way they are. In addition to providing a general foundation in human biology, HEB focuses on questions such as what selective forces acted on humans during their evolution; how genotypes and phenotypes are related; how environmental forces, such as infectious disease and climate, influenced human biology and evolution; how natural selection has affected social cognition and behavior; and what role culture has played in human evolution.

**REQUIREMENTS: 5 courses (20 credits)**

1. Life Sciences 1b
2. Four additional HEB courses, including Gen Ed 1027, plus three Human Evolutionary Biology courses, found at courses.my.harvard.edu.

**OTHER INFORMATION**

One Freshman Seminar may be counted for the secondary field in HEB if taught by an HEB faculty member. All courses must be taken for a letter grade, except relevant Freshman Seminars, which are graded SAT/UNS. Only courses for which a satisfactory grade is received will receive secondary field credit.

**ADVISING RESOURCES AND EXPECTATIONS**

Students interested in pursuing a secondary field in Human Evolutionary Biology should contact Secondary Field Adviser Dr. Neil Roach (ntroach@fas.harvard.edu) for more information.

## Integrative Biology

The faculty of the Department of Organismic and Evolutionary Biology (OEB) study biological systems at all levels from molecules to ecosystems, united by a shared foundation in evolutionary biology. Our department offers courses in a broad range of topics, including: anatomy, behavior, biomechanics, development, ecology, entomology, evolution, forestry, genetics, genomics, marine biology, microbiology, molecular evolution, mycology, paleontology, physiology, plant sciences, oceanography, systematics, and zoology.

The secondary field in Integrative Biology (IB) reflects this breadth. Students may have an interest in pursuing a secondary field of study in a particular sub-discipline or may prefer to sample broadly across the offerings of the department. Rather than draft a set of requirements for each possible field of study, the department chose a flexible set of requirements that should maximize students' freedom to craft their own programs in consultation with an academic adviser.

**REQUIREMENTS: 5 courses (20 credits)**

A secondary field requires the completion of five courses offered by members of the OEB department (for a full listing see https://masthead.fas.harvard.edu). For this purpose, all courses listed in the OEB course search on my.Harvard.edu, including cross-listed courses, as well as Life Sciences 1b and Life Sciences 2, will count.

**OTHER INFORMATION**

All courses must be taken for a letter grade, with the exception of one approved Freshman Seminar. The grade minimum for a course to count toward the secondary field shall be C-.

Courses taught by members of the department at Harvard Summer School will count toward the secondary field. One Freshman Seminar or one course in General Education may count toward the secondary field (in each case the course must be taught by a member of the department). One course taken while studying abroad may count toward the secondary field if approved in advance by the head tutor.

**ADVISING RESOURCES AND EXPECTATIONS**

Questions about the secondary field should be addressed to the IB Concentration Adviser (Dr. Andrew Berry; 617-495-0684; berry@oeb.harvard.edu) or IB Director of Undergraduate Studies (Dr. Gonzalo Giribet; ggiribet@g.harvard.edu).

# Linguistics

Linguistics at Harvard is counted among the humanities. Much research in linguistics, however, lies in the area of linguistic theory, which seeks to develop a theory of language that accounts for interlanguage variation while uncovering the general laws and principles that govern all languages. Such work resembles research in the social and behavioral sciences. Recently, advances in biology and neuroscience have led to the emergence of a kind of linguistic scholarship that closely parallels research in the life sciences. Thanks to its unique field- and methodology-straddling quality, Linguistics is able to offer three distinctively contoured secondary field pathways:

- Language History and Language Structure
- Language and Linguistic Theory
- Language, Mind and Brain

**REQUIREMENTS: 5 courses (20 credits)**

**Language History and Language Structure**

The pathway in Language History and Language Structure is designed for students whose curiosity about linguistics is an outgrowth of their interest in specific languages or their "love of languages" in general. Such students may also have considered concentrating or taking courses in an ancient or modern language field (Classics, Romance, Slavic, Near Eastern languages, East Asian languages, etc.); or they may simply be looking for ways to learn more about the history and structure of English.

1. *Two foundational courses, consisting of*
    1. **Linguistics 101**: The Science of Language: An Introduction; or **Linguistics 83**: Language, Culture, and Cognition.
    2. A core linguistics course to be chosen from among **Linguistics 102, 104, 105, 106, 107, 108** or a **Freshman Seminar** in Linguistics (**34x**: Language and Prehistory; **61Q**: The Origins of Meaning)
2. *Three more courses, chosen from among:*
    1. **Linguistics 117r:** Linguistic Field Methods; **Linguistics 107**: Introduction to Indo-European; or **Linguistics 108**: Introduction to Historical Linguistics
    2. Any more specialized course in historical linguistics, e.g.
        1. **Linguistics 118**: Historical and Comparative Linguistics;
        2. **Linguistics 168**: Introduction to Germanic Linguistics;

3. **Linguistics 176**: History and Pre-History of the Japanese Language; or
4. **Greek 134**: The Language of Homer.

3. *Any more specialized course in descriptive linguistics,*
    1. **Linguistics 171**: Structure of Chinese;
    2. **Linguistics 174**: Tense and Aspect in Japanese;
    3. **Slavic 126a**: Structure of Modern Russian.

**Language and Linguistic Theory**

The pathway in Language and Linguistic Theory is designed for students whose love of languages (with a final -s) is less important to them than their love of Language (with a capital L). Such students may have been attracted to linguistics from a variety of fields—a foreign language, English, anthropology, mathematics, computer science, even physics. What unites them is an interest in the common formal and representational system that underlies all human languages.

1. *Two foundational courses:*
    1. **Linguistics 101**: The Science of Language: An Introduction; or **Linguistics 83**: Language, Culture, and Cognition.
    2. A core linguistics course to be chosen from among **Linguistics 102, 104, 105, 106** or a **Freshman Seminar** in linguistics (e.g. **34x**: Language and Prehistory; **39x**: Human, Animal and Artificial Languages; **61Q**: The Origins of Meaning).
2. *Three more advanced courses, chosen from among:*
    1. **Linguistics 102**: Sentence Structure;
    2. **Linguistics 104**: Word Structure;
    3. **Linguistics 105**: Sounds of Language;
    4. **Linguistics 106**: Knowledge of Meaning;
    5. **Linguistics 107**: Introduction to Indo-European;
    6. **Linguistics 108**: Introduction to Historical Linguistics; or
    7. Any more advanced course in syntax, morphology, phonetics/phonology, semantics, acquisition, language processing or computational linguistics.

**Language, Mind and Brain**

The pathway in Language, Mind and Brain was created for students with an interest in the areas of inquiry addressed by Harvard's Mind/Brain/Behavior Initiative. Such students will be less interested in language-particular facts than those in the other two groups; they will be correspondingly more interested in the evolution of language, the linguistic abilities of non-human primates, the mechanisms used by the brain to access and store linguistic information, and similar questions.

1. *Two foundational courses, consisting of*
    1. One of the introductory courses: **Linguistics 101**: The Science of Language: An Introduction; or **Linguistics 83**: Language, Culture, and Cognition
    2. A core linguistics course to be chosen among **Linguistics 102, 104, 105, 106** or a **Freshman Seminar** in linguistics (e.g. **39x**: Human, Animal and Artificial Languages; **61Q**: The Origins of Meaning).
2. *Three more courses, chosen from among the following groups:*
    1. **Linguistics 102**: Sentence Structure;
    2. **Linguistics 111**: Language acquisition;
    3. **Linguistics 130:** Psycholinguistics;
    4. **Linguistics 132**: Psychosemantics;
    5. **Linguistics 146**: Syntax and Processing;
    6. or any similar course approved by the Head Tutor; or
    7. Any linguistics-related MBB course, e.g.
        1. **MCB 80** or **NEURO 80**: Neurobiology of Behavior
        2. **Computer Science 187**: Computational Linguistics
        3. **Philosophy 147**: Philosophy of Language;
        4. or an MBB interdisciplinary seminar.

**OTHER INFORMATION**

Subject to the head tutor's approval, linguistics summer school courses and linguistics study abroad courses will be allowed to count towards the secondary field requirements. One course may be taken

Pass/Fail towards the course requirements; this may be, but need not be, one of the designated Freshman Seminars.

**ADVISING RESOURCES AND EXPECTATIONS**

The primary adviser and contact person for the secondary fields in Linguistics is the head tutor, Professor Isabelle Charnavel (icharnavel@fas.harvard.edu).

# Mathematical Sciences

The secondary field in Mathematical Sciences is jointly sponsored by the Mathematics Department and the Applied Mathematics concentration.

**REQUIREMENTS: 4 courses (16 credits)**

Four courses in either Mathematics, Applied Mathematics, or Statistics of which at most two can be in Statistics. The Mathematics and Applied Mathematics courses must be numbered 104 or higher; and Statistics courses must be numbered 110 or higher.

**OTHER INFORMATION**

Courses must be taken for a letter grade and cannot be taken Pass/Fail. Only courses with a grade of C- or above can be counted.

Students who study abroad or take courses within Harvard Summer School can count course credits toward the secondary field by petitioning for such course to be counted as the equivalent to an approved, Harvard course.

Note that courses in other departments that are only cross listed in the course catalog, under Mathematics, Applied Mathematics or Statistics, will count towards secondary field.

**ADVISING RESOURCES AND EXPECTATIONS**

If students have questions about course selection they should contact the Director of Undergraduate Studies for Mathematics, Cliff Taubes (chtaubes@math.harvard.edu) or the Applied Math Advising Team (am-advising@seas.harvard.edu).

# Medieval Studies

The “Middle Ages” is the name given to a thousand-year long period of European, Eurasian, and African history and culture spanning the period between “Antiquity” (c. 1000 BCE to 500 CE) and “Modernity” (c. 1600 CE onward). Those who defined themselves as "modern" came to view the medieval period condescendingly, associating it with basic themes and images such as heroism and chivalry, “feudal” society, and religious fervor. All of these are stereotypes that say far more about “modernity” than they do about a period whose innovations are essential parts of Western as well as global culture as we know it today. Learning about the vast and varied period known as the Middle Ages offers a unique and valuable perspective on modern history and culture. It also allows you to see the many different ways in which human societies function, invent, create, believe, and interact. From the viewpoint of its cultural descendants in the New World as well as the Old, the Middle Ages is both “us” and “not us,” at once part of our collective heritage and something very, very different.

The secondary field in Medieval Studies examines the Middle Ages from many different angles and through the eyes of many different disciplines. It draws on the wealth of medieval teaching and scholarship at Harvard, where there are faculty medievalists in at least twenty departments, programs, and schools. The secondary field consists of one foundational course in any discipline, plus four more advanced courses that expose students to the wide range of disciplines that make up Medieval Studies. While some of these courses teach or require specialist skills, most are intended to be accessible to any interested student, whatever the student's field of specialization.

**REQUIREMENTS: 5 courses (20 credits)**

1. One foundational course chosen from among any of the courses below the 90-level listed on the program's website. Students may petition to count History and Literature 97a towards this requirement if they have focused on medieval topics.
2. Three courses at the 90 level or above, listed on the program's website and in the Medieval Studies course search in courses.my.harvard.edu. These courses should cover three of the four core disciplinary areas of Arts, History, Literature & Language, and Thought & Religion. Each of these advanced courses must be offered by a different department, with the exception of Medieval Studies itself (all three courses can have a Medieval Studies number). Students are encouraged to take at least one Medieval Studies-numbered course (e.g. Medieval Studies 106, 107, 111, 117, or 119).
3. One elective course at any level, chosen from any of the offerings listed on the program's website; this may include a Freshman Seminar dealing substantially with the medieval period.

**OTHER INFORMATION**

All five courses must be taken for a letter grade and passed with a B- or better, except for approved Freshman Seminars, which are graded SAT/UNS.

Courses offered through the Harvard Summer School, and course credits gained through study abroad programs, will only be accepted for secondary field credit if they are on medieval topics and taught by members of the Medieval Studies faculty (e.g. Scandinavian S-150, "Study Abroad in Scandinavia"). Normally, only one such course should be used to fulfill the requirements of the secondary field. Any inquiries about such courses should be addressed to the DUS of Medieval Studies, Sean Gilsdorf.

Courses offered in Harvard schools other than FAS must be jointly offered in FAS to count toward the secondary field.

Courses counting for a secondary field in Medieval Studies are updated periodically. If students find other courses that could count, they should contact the Medieval Studies Program at medieval@fas.harvard.edu.

**ADVISING RESOURCES AND EXPECTATIONS**

For more information on the secondary field, or for advice on how to devise your program within the field, please contact the Director of Undergraduate Studies, Sean Gilsdorf, at gilsdorf@fas.harvard.edu or 617-496-5857.

# Microbial Sciences

Microbial sciences is an interdisciplinary approach to studying the impact of microbes at scales from global ecosystems down to single-celled microenvironments. The academic program emphasizes the joint study of species diversity, metabolic function, geochemical impact, and medical and pharmaceutical applications of microbial sciences. Faculty affiliated with the Microbial Sciences Initiative (MSI) include members from Molecular and Cellular Biology, Organismic and Evolutionary Biology, Earth and Planetary Sciences, Chemistry and Chemical Biology, the School of Engineering and Applied Sciences, Harvard Medical School, Harvard School of Public Health, and the Forsyth Institute.

The MSI secondary field is intended to provide a strong foundation in interdisciplinary microbial sciences to students who have sufficient preparation in other natural sciences, mathematics, or engineering. In particular, the MSI curriculum is intended to (i) be interdisciplinary, (ii) not be specifically biomedical, and (iii) incorporate elements from physical sciences as well as life sciences. An important aspect of the MSI secondary field is the laboratory component, which provides hands-on experiential learning to all students.

**REQUIREMENTS: 5 courses (20 credits)**

1. *Two MSI cornerstone courses*. All secondary field students will take Microbiology 210: A Microbial Planet, and Life Sciences 100r (Experimental Research in Life Sciences). Other research project

courses, such as those numbered 91r or 99r, may be allowed to substitute for Life Sciences 100r if they have the appropriate microbial emphasis. No substitutions will be accepted for Microbiology 210.

2. *One introductory course*. All secondary field students will take one approved introductory course below the 100-level. The eligible courses will be selected from departmental offerings in FAS that contain material relevant to providing a foundation in microbial sciences. Examples of such courses can be found on the MSI website.
3. *Two additional microbial science courses at the 100-level or above.* These are available across a variety of departments. A list of such courses is available on the MSI website.
4. *MSI tutorial: non-credit.* Students are strongly encouraged, but not required, to attend additional MSI programming, including weekly chalk talks, monthly seminars, and the annual symposium. If conducting research, students are also invited to apply for the MSI Summer Undergraduate Fellowship, which (if awarded) provides a stipend to support the student conducting research with an MSI faculty affiliate over a 10-week summer period.

**OTHER INFORMATION**

All courses must be taken for a letter grade in order to count toward secondary field credit, and normally C is the minimum acceptable grade. The only exception is approved Freshman Seminars, which are graded SAT/UNS.

Of the one introductory course and two additional microbial courses, two must be significantly outside the student's primary area of concentration, providing each student substantial interdisciplinary experience.

Some courses for Microbial Sciences credit may have hidden prerequisites. Students should plan appropriately, as a prerequisite cannot be counted for Microbial Sciences credit unless it satisfies requirement 2 above.

Students may receive credit for Life Sciences 100r twice. Students electing to do this may count one semester towards the Microbial Sciences secondary field and one towards their concentration, or they may count the second semester as one of their two 100-level electives in the secondary field. A single semester of Life Sciences 100r may not be double-counted.

Courses from study abroad or Harvard Summer School could count toward secondary field credit if approved by the MSI Steering Committee prior to the student's enrollment in these courses. The student must petition the MSI Steering Committee in the semester prior to their intended enrollment in such courses and must provide a syllabus or detailed course summary to the committee. A petition to retroactively consider substituting one relevant Freshman Seminar for one of the two 100-level elective courses also will be considered.

**ADVISING RESOURCES AND EXPECTATIONS**

Students will submit an application to MSI for the secondary field no later than the course enrollment due date of their penultimate term. This application is available on the MSI website. Additionally, students must file online with the Registrar's Office through the Secondary Fields Web Tool.

Students are encouraged to be active participants in the MSI community. Secondary field students will be invited to all MSI events and activities. Undergraduate participation will provide opportunities to get acquainted with graduate students, post-docs, and members of the faculty.

Students interested in pursuing a secondary field in Microbial Sciences should contact MSI leadership using the MSI email address MSI@fas.harvard.edu

# Mind Brain Behavior

Mind Brain Behavior (MBB) introduces students to the interdisciplinary study of the mind, the brain, and behavior. As a secondary field, it offers students the opportunity to confront the significant findings that have arisen from the traditional disciplines in the MBB area of inquiry and emphasizes the intellectual innovations that stem from crossing traditional disciplinary lines. Students will learn how past and current

researchers have brought the perspectives of neuroscience into dialogue with those of other natural sciences, the social sciences, and the humanities, and will develop habits of interdisciplinary thinking themselves. In particular, the secondary field provides opportunities to learn about computational, neurobiological, evolutionary, psychological, linguistic, philosophical, and historical approaches and their interactions.

These goals reflect the state of knowledge about mind, brain, and behavior, knowledge that is growing exponentially. The traditional disciplines have proven remarkably successful at expanding this knowledge and have been enhanced by interdisciplinary links that have foregrounded new technologies and theories. MBB has brought together a diverse group of faculty from Harvard's different schools and disciplines, and students may take courses from them, work in their laboratories and research projects, and hear them speak at MBB events.

**REQUIREMENTS: 5 courses (20 credits)**

1. Psychology 1: Introduction to Psychological Science, formerly Science of Living Systems (SLS) 20 (recommended first-year)
2. Neuroscience 80: Neurobiology of Behavior, also listed as Molecular and Cellular Biology (MCB) 80 (recommended sophomore year)
3. Interdisciplinary Seminar (recommended junior year), selected from a list that varies each year.
4. Two Mind Brain Behavior courses, selected from a list that varies each year.

**OTHER INFORMATION**

All courses must be taken for a letter grade. Students are also encouraged to attend the MBB junior symposium and are welcome to join the student organization Harvard Society for Mind Brain and Behavior (HSMBB).

**ADVISING RESOURCES AND EXPECTATIONS**

Students considering a secondary field in MBB should familiarize themselves with the MBB website: http://mbb.harvard.edu. Students should also introduce themselves by emailing Education Program Coordinator Shawn Harriman (shawn_harriman@harvard.edu) as early as possible to allow MBB to keep them informed of important policies, events, and other opportunities. Shawn is also happy to answer general questions about Mind Brain Behavior and its secondary field.

Students are also strongly encouraged to meet with MBB faculty to discuss their academic and career interests, course options, and research opportunities. Contact information for MBB Faculty Advisors is available on the MBB website.

## Molecular and Cellular Biology

The secondary field in Molecular and Cellular Biology (MCB) is intended for students with an interest in the life sciences, particularly in the study of biological processes based on the investigation of molecules and their interactions in the context of cells and tissues. The cell is the fundamental unit of all living things and is therefore an ideal framework for integrating one's understanding of the structure and chemistry of macromolecules with their higher-order organization and behavior in a living context. Students pursuing the MCB secondary field gain a solid foundation by completing a set of three courses within introductory life sciences courses and intermediate courses in the MCB department. To deepen their understanding of the discipline, students will then enroll in two additional MCB courses of their choosing. The choice of these courses, which should be made with the guidance of a concentration adviser, will allow students to explore specific sub-fields in MCB, such as biochemistry, microbiology, immunology, virology, neurobiology, and molecular medicine. Students are also encouraged to get involved in research. The secondary field is designed for students who desire a broad yet rigorous introduction to the field and may be appropriate for students with diverse career interests, including (but certainly not limited to) applied mathematics, statistics, computer science, economics, government, health policy, business, and journalism.

**REQUIREMENTS: 5 courses (20 credits)**

1. Three or four introductory or intermediate courses as follows:
    1. One or two integrated introductory courses in the life sciences:
        1. Life Sciences 1a: Chemistry, Molecular Biology, and Cell Biology (or Life and Physical Sciences A)
        2. Life Sciences 1b: Genetics, Genomics, and Evolution
    2. One or two intermediate courses in molecular and cellular biology:
        1. MCB 60, MCB 63, MCB 64, MCB 65, MCB 68 MCB 80, or MCB 81.
2. Complete the remainder of requirements from advanced courses in MCB.
    1. MCB 100-level courses
    2. One of these courses can be a research course (MCB 91 or MCB 100/LS 100)

*Notes*:

- LS 1a and LS 1b (or LS 50), as well as MCB 60, are foundational courses highly recommended for all students.
- Students should consult the concentration adviser for advice on 100-level course selection. Research courses are encouraged for students interested in integrating a research experience into their plan of study.
- Students who take LS 50 will be credited for LS 1a, LS 1b, and a research course. They can thus fulfill the secondary field requirements by completing two intermediate courses, or one intermediate course and one MCB 100-level course.

**OTHER INFORMATION**

To count for credit towards the secondary field, the five courses must be taken for a letter grade. Freshman Seminars will not count towards the secondary field. Students working in a research laboratory as part of a study abroad program can petition to have that research experience count as an advanced course towards the secondary field, and some Harvard Summer School Courses can count for credit towards the secondary field with preapproval. Students should contact the MCB concentration adviser, Dr. Dominic Mao (dominicmao@fas.harvard.edu), for more information on counting Harvard Summer School courses and research conducted as part of a study abroad program for the secondary field in MCB. Students pursuing a secondary field in MCB will not be given preferential access to limited enrollment courses. We do not anticipate that courses required for the secondary field will be over-enrolled.

The MCB secondary field is not open to students concentrating in Chemical and Physical Biology, Human Developmental and Regenerative Biology, or Neurobiology, given similarities in the content and skills developed within these concentrations and current policy with respect to counting courses for concentration and secondary fields.

**ADVISING RESOURCES AND EXPECTATIONS**

For additional information, students interested in pursuing the MCB secondary field may contact the MCB concentration adviser, Dr. Dominic Mao (dominicmao@fas.harvard.edu). Students are encouraged to meet with the concentration adviser as needed, particularly upon completion of the introductory and intermediate courses to select appropriate advanced courses. Students intending to pursue the MCB secondary field in should notify the department using the secondary fields web tool. Upon completion of the secondary field requirements, students need to meet with the concentration adviser to confirm that the courses they have taken count for credit towards the MCB secondary field.

# Music

The Department of Music offers one secondary field designed to be flexible enough to accommodate a broad range of interests. Students are free to explore the field by selecting a variety of courses, or they may focus on a specific aspect of the larger field.

**REQUIREMENTS: 5 courses (20 credits)**

Any five courses selected from among the courses offered in Music (including Gen Ed courses and Freshman Seminars taught by Music Department faculty), with the exceptions noted below:

- No more than two courses may be selected from Gen Ed Courses, Freshman Seminars, Music 1 through 9, and 20 through 49.
- A repeatable course may count only once under a given number (repeatable courses are labeled 'r' after their course number, so you can take 190r and 191r but not 190r twice).
- No more than one course may be selected from Music 10 through 18 (which may be graded SAT/UNSAT).
- Courses counting for secondary field credit may not be taken Pass/Fail, other than one Freshman Seminar (graded SAT/UNS) and one ensemble (Music 10 through 18).

**OTHER INFORMATION**

Courses taken abroad or in the summer school can be counted in the secondary field only with the permission of the department, normally granted only after the course has been completed.

**ADVISING RESOURCES AND EXPECTATIONS**

Students pursuing a secondary field are urged to seek out members of the Music department faculty for advice on their specific course choices. For general information about the department, its faculty, and courses visit the department website.

For more information on the secondary field and for advising, please speak to the Director of Undergraduate Studies (Professor Richard K. Wolf, rwolf@fas.harvard.edu), or the current Undergraduate Coordinator in the Music Building (617-384-9507).

# Near Eastern Languages and Civilizations

Interest in the Near/Middle East and its cultures will likely grow as the region continues to play key role in contemporary international affairs. Knowledge of its languages, histories and cultures is urgently needed for an understanding of current events and the discourses that envelop them. For students wanting to pursue a limited number of targeted courses to as an introduction to the region, the department offers four secondary field pathways:

- The Middle East in Antiquity
- Histories and Cultures of Muslim Societies (Islamic Studies)
- Jewish Studies
- Modern Middle Eastern Studies

**REQUIREMENTS: 5 half-courses (Total 20 credits)**

Each of the four pathways require five courses, which must be approved by the Director of Undergraduate Studies of the Department of Near Eastern Languages and Civilizations or the adviser designated for the field by the department.

**THE MIDDLE EAST IN ANTIQUITY**

The secondary field pathway in The Middle East in Antiquity focuses attention on the rich and diverse history of the civilizations of the Ancient Near East, which witnessed the first complex societies and the first major developments in social and political organization, literacy, technology, religious institutions, and many other arenas, whose consequences remain a critical force in subsequent Middle Eastern, and world, history. The goal of this pathway is to give students an articulate acquaintance with the history and culture of the principal civilizations of the Ancient Near East, and to provide instruction in how such history and culture can be reconstructed through the critical analysis and synthesis of linguistic, textual, artistic, and archaeological evidence.

Harvard is an ideal place to pursue this field given the richness of its resources in libraries (Widener, History of Art, Tozzer, Law, Andover-Harvard), museums (Semitic, Peabody, and Sackler), and faculty (Near Eastern Languages and Civilizations [NELC], but also Anthropology, History of Art and

Architecture, Linguistics, and the Divinity School).

1. At least two "gateway courses."
2. Three additional half-courses (total 12 credits) in the area of Middle East in Antiquity, with the approval of the Director of Undergraduate Studies (DUS) of NELC or his/her designee; at least two of which must be at the 100-level or above.

The electives allow the students to pursue study of one or several of the civilizations and arenas that are introduced in the two gateway courses. Qualified students are encouraged to consider taking their elective courses in languages important to the study of the ancient Near East (e.g., Classical Hebrew, Aramaic, Akkadian, Egyptian, either as language or as literature courses). However, no more than two of these courses may be courses whose primary focus is language instruction.

**HISTORIES AND CULTURES OF MUSLIM SOCIETIES (ISLAMIC STUDIES)**

The goal of this secondary field pathway is to provide a basic exposure to the literary, philosophical and religious traditions of the Islamic world from the rise of Islam to the present day. The language-areas covered are Arabic, Persian, Turkish and Urdu. The program in Histories and Cultures of Muslim Societies is structured to allow students flexibility in their approach to the field, and students are encouraged to incorporate disciplinary perspectives currently available in the Harvard curriculum (for example, anthropology, comparative literature, philosophy, politics, religious studies, and sociology).

1. At least two "gateway" courses, and either
2. Three additional half-courses (total 12 credits) in Histories and Cultures of Muslim Societies (Islamic Studies), at least two of which must be at the 100-level or above. Students are free to pick from any three courses in Histories and Cultures of Muslim Societies (Islamic Studies) offered in NELC or elsewhere, these courses to be approved by the DUS or his/her designee. Qualified students are encouraged to consider taking their elective courses in languages important to the study of the Muslim world (Arabic, Persian, Swahili, Turkish or Urdu; these can be either language or literature courses). However, no more than two of these courses may be courses whose primary focus is language instruction, or
3. Three additional half-courses (total 12 credits) in Islamic Studies, at least two of which must be at the 100-level or above. Students are free to pick from any three courses in Islamic Studies offered in NELC or elsewhere, these courses to be approved by the Director of Undergraduate Studies (DUS) or his/her designee.

Qualified students are encouraged to consider taking their elective courses in languages important to the study of the Muslim world (Arabic, Persian, Turkish or Urdu; these can be either language or literature courses). However, no more than two of these courses may be courses whose primary focus is language instruction.

**JEWISH STUDIES**

The goal of this secondary field pathway is to provide a basic exposure to fundamental elements of the history, literature, religious thought, and legal institutions of Jewish civilization. As in other areas of undergraduate liberal arts education, and even more so in a secondary field of five courses, our goal is not to impart comprehensive knowledge of an entire academic field, but rather to ensure that students will have a basic framework for asking questions and tools for seeking answers. A combination of a historical survey focusing heavily on the pre-modern experiences of the Jews, with a course about modern Jewish history or literature and additional courses in different specific areas provide secondary field students with an exposure to Jewish culture through the ages, equipping them with a basic familiarity with Jewish culture, history, and literature.

1. Two "gateway" courses.
2. Three additional half-courses (total 12 credits) in Jewish Studies, at least two of which must be at the 100-level or above.

Students are free to pick from any three half-courses (total 12 credits) in Jewish Studies offered in NELC or elsewhere, these courses to be approved by the DUS or his/her designee. Qualified students are encouraged to consider taking their elective courses in languages important to the study of Jewish cultures (Hebrew, Yiddish, Aramaic; these can be either language or literature courses). However, no more than two of these courses may be courses whose primary focus is language instruction.

**MODERN MIDDLE EASTERN STUDIES**

This secondary field provides Harvard undergraduates, whose concentration is outside the field of Near Eastern Languages and Civilizations, the opportunity to engage in foundational study of the cultures, history and politics of modern Middle Eastern societies. It encourages such study through a combination of courses in the humanities and interpretive social sciences.

The five half-courses selected by the secondary concentrator must be approved by the DUS and the secondary concentration adviser.

The requirements are designed with sufficient flexibility so that students may pursue the field as an introduction to the region as a whole, or as a more narrowly focused exploration of a particular country or theme, depending on their interests. The five half-courses must, however, follow the following simple guidelines:

1. One half-course (4 credits), The Modern Middle East 100 (formerly Near Eastern Languages 100) Approaches to Middle Eastern Studies. All students must enroll in this course, which serves as the gateway course to the secondary field.
2. Four additional half-courses (total 16 credits) related to the study of Middle Eastern societies, at least two of which must be at the 100-level or above. These courses are to be approved by the DUS or his/her designee and may be chosen from those offered in NELC or elsewhere, including the Program in General Education. For a list of possible courses, please consult the NELC web site.

Qualified students are strongly encouraged to consider taking some of these elective courses in languages important to the study of the Middle East (Arabic, Hebrew, Persian, or Turkish; these can be either language or literature courses). However, no more than two of these courses may be courses whose primary focus is language instruction.

All courses must be taken for a letter grade and must be completed with a grade of B- or above, with the exception of approved Freshman Seminars, which may be applied toward the field with a grade of SAT. Credit for courses from Harvard Summer School and other Harvard faculties may be granted upon petition. Study abroad in the region is encouraged, and one half-course of study abroad credit may be applied toward the field with prior approval of the Middle Eastern Studies academic adviser.

**OTHER INFORMATION**

One course taken abroad for Harvard College credit (either over the summer, a semester, or a year; the DUS or the designee will advise students on approved programs) may count towards the requirements, as may a Freshman Seminar. Other than Freshman Seminars, all courses must be letter graded. Courses taken in other departments that fit into the intellectual focus of the chosen track may also be counted.

At least two courses should be at the 100-level or above. No more than two of the courses may be language courses. Students seeking to focus primarily on language should consider pursuing a language citation.

**ADVISING RESOURCES AND EXPECTATIONS**

For more information, students should contact the Director of Undergraduate Studies, Gojko Barjamovic (barjamovic@fas.harvard.edu).

# Neuroscience

Neuroscience, the study of the nervous system, is a field that investigates the biological mechanisms of behavior and how brains processes information. To develop a comprehensive understanding, we study the nervous system at every level from the macroscopic (behavior and cognition) to the microscopic (cells and molecules). Thus, the study of neuroscience provides both a broad scientific training and a deep understanding of the biology of the nervous system.

The Neuroscience secondary curriculum begins with a fundamental course requirement that reflects the diversity of approaches in neuroscience: biological, cognitive, and quantitative. Students also take an

introductory neurobiology course (Neuro 80), which lays out the body of knowledge in the field. Next students choose a foundational course in a sub-field of neuroscience ranging from molecules to animal behavior. Finally, in advanced elective courses, students explore specific areas of neuroscience more deeply based on their interests. We now list over 40 advanced courses on a range of topics: cells and circuits, physiology, learning and memory, cognitive science, development, genetics, and disease and therapeutics.

**REQUIREMENTS: 5 courses (20 credits)**

1. One of the following courses:
    1. Life Sciences 1a or Life and Physical Sciences A
    2. Computer Science 50
    3. Math at the level of Math 1a or above
    4. an additional advanced course in neuroscience (as described in # 4 below).
2. Neuro 80
3. One foundational course chosen from the following:
    1. Neuro 57 (Animal Behavior)
    2. Neuro 105 (Systems Neuroscience)
    3. Neuro 115 (Cellular Basis of Neuronal Function)
    4. Neuro 120 (Computational Neuroscience)
    5. Neuro 125 (Molecular Basis of Behavior)
4. Two advanced courses in neuroscience. These courses must be chosen from a list of approved courses maintained on the concentration website. Courses listed as MBB electives do not count toward the secondary field in Neuroscience.

**OTHER INFORMATION**

Students must take either Neuro 80 (formerly MCB 80) before enrolling in the advanced neuroscience courses. Neuro tutorials designated as Neuro 101-level are considered advanced neuroscience courses. Ordinarily, only one tutorial course may be counted toward the secondary field. Students enrolling in Life Sciences 100 must complete the neuroscience project and may only take the course once for secondary field credit.

All courses in the secondary field must be taken for a letter grade, and students must earn a grade of C- or better in each course. Freshman Seminars may not be included for credit. Ordinarily, Harvard Summer School courses may not count towards secondary field credit. Courses taken through study abroad programs may be counted for credit in the secondary field by petition. Courses taken at other Harvard faculties (e.g., Harvard Medical School) may count for the secondary field by petition or if the course is one of the approved advanced neuroscience courses.

**ADVISING RESOURCES AND EXPECTATIONS**

Prior to completing the required courses, students are welcome to meet with the concentration advisers as needed, and students are encouraged to meet with them upon completing the introductory courses in order to select appropriate advanced courses. After completing the requirements for the secondary field, students are required to meet with one of the Concentration Advisers, in order to confirm that the courses they have taken count for credit towards the Neuroscience secondary field.

Questions about the secondary field in Neuroscience should be addressed to Dr. Ryan Draft, the Neuroscience Concentration Adviser (BioLabs Room 1082A, 16 Divinity Ave., 617-496-9908, draft@fas.harvard.edu). Either Dr. Draft or Dr. Magnotti may sign the final form for secondary field credit.

# Philosophy

Philosophy studies many of humanity's fundamental questions: how should we live, what kind of society should we strive towards, what are the limits of human knowledge? What is truth? Justice? Beauty? These questions are central to our lives, because in much of what we do, we at least implicitly assume answers to them.

Philosophy seeks to reflect on these questions and answer them in a systematic, explicit, and rigorous way—relying on careful argumentation, and drawing from outside fields as diverse as economics, literature, religion, law, mathematics, the physical sciences, and psychology. And while most of the tradition of philosophy is Western, we seek to connect with non-Western traditions like Islam and Buddhism, as well.

Philosophy doesn't just operate at this most abstract of planes. We often investigate more specific issues in our classes.

- What is race, and what does justice require when it comes to race?
- What is gender?
- What are the ethical issues raised by technology in society?
- When and why is punishment justified?
- How should we interpret quantum mechanics?
- How does language play into the constitution of our selves and our society?
- In what sense are various kinds of facts, like natural and social facts, objective?
- Is the mind best thought of as a computer?
- What are the ethical challenges of climate change?

Philosophical questions are everywhere. If you find yourself drawn to them, studying philosophy in college is likely the best opportunity in your life to deeply engage with them. In fact, many concentrators find their way into philosophy from other disciplines, where they encounter interdisciplinary or foundational questions that can only be addressed through philosophical reflection. And given the small size of the department, concentrators have the rare opportunity to closely engage with dedicated faculty at the top of their fields.

Whether they take just a course or two or end up concentrating, students find studying philosophy to be among the most rewarding intellectual experiences of their college careers. The department offers a rich array of classes to choose from, and students develop their own responses to the philosophical problems that attract them in conjunction with their study of philosophical writing. The department's introductory courses help students to develop their reading, writing, and reasoning skills while acquainting them with broad surveys of major areas and historical periods. The department's more advanced courses focus on more specific topics and allow students to explore their interests in the context of the broad foundation they acquired in the introductory courses.

Harvard philosophy concentrators have gone on to pursue diverse and fulfilling careers in law, finance and consulting, business, internet start-ups, medicine, journalism, the arts, non-profit work, education, and academia. The skills that philosophy teaches students will always be in high demand: the ability to think and write clearly, the ability to bring to light unnoticed presuppositions, to explain complex ideas clearly, to tease out connections and implications, to see things in a broader context, to challenge orthodoxy. In short, philosophy gives you skills that you can apply to any line of work.

The secondary field in Philosophy is designed to offer students both a general introduction to philosophical skills and a more focused exploration of some particular domain of philosophy. The secondaries below make reference to different areas of philosophy. Students can find a complete list of which courses count towards which of these areas on the philosophy department website (https://philosophy.fas.harvard.edu/concentration).

We offer four different pathways, all of which will appear as "Philosophy" on the transcript:

- General Philosophy
- Value Theory
- Contemporary Metaphysics and Epistemology
- History of Philosophy

Each consists of six courses (24 credits): (a) a recommended introductory level course, (b) a tutorial, and (c) four additional courses, one of which can be a related course outside the department. In all cases, the structure is designed to ensure that students have a basic introduction to the subject matter and methodology of philosophy; an intensive discussion-based tutorial in which they have close contact with the instructor and work intensively on their writing; and a selection of upper level courses that develop the student's skills in the area of their interest.

**REQUIREMENTS: 6 courses (24 credits)**

**General Philosophy**

A selection of courses from across the discipline.

1. Tutorial I: PHIL 97.
2. Three courses covering three of the four areas, as categorized on the philosophy department website:
3. History of Philosophy.
4. Moral and Political Philosophy and Aesthetics.
5. Contemporary Metaphysics and Epistemology, broadly construed.
6. Logic.
7. One other course in philosophy. An introductory course in the department (numbered below 91) is preferred, but in consultation with the Director of Undergraduate Studies, students may elect to forego taking an introductory course.
8. One other philosophy course, or a related course outside the department that has been approved by the Director of Undergraduate Studies.

**Value Theory**

Examination of historical and contemporary theories about the basis and content of such moral and political concepts as the good, obligation, justice, equality, rights, and freedom. This also includes issues in aesthetics.

1. Tutorial I: PHIL 97.
2. Three courses in Moral and Political Philosophy and Aesthetics, as categorized on the philosophy department website.
3. One other course in philosophy. An introductory course in the department in moral and political philosophy or aesthetics (numbered below 91) is preferred, but in consultation with the Director of Undergraduate Studies, students may elect to forego taking an introductory course.
4. One other philosophy course, or a related course outside the department that has been approved by the Director of Undergraduate Studies.

**Contemporary Metaphysics and Epistemology**

Examination of issues in Metaphysics and Epistemology, broadly construed, so as to also include philosophy of language, science, and mind.

1. Tutorial I: PHIL 97.
2. One course in logic.
3. Two courses in Metaphysics and Epistemology, broadly construed, as categorized on the philosophy department website.
4. One other course in philosophy. An introductory course in the department in metaphysics and epistemology, broadly construed (numbered below 91) is preferred, but in consultation with the Director of Undergraduate Studies, students may elect to forego taking an introductory course.
5. One other philosophy course, or a related course outside the department that has been approved by the Director of Undergraduate Studies.

**History of Philosophy**

A close study of elements of the history of philosophy.

1. Tutorial I: PHIL 97.
2. Three courses in the history of Philosophy, as categorized on the philosophy department website.
3. One other course in philosophy. An introductory course in the department in the history of philosophy (numbered below 91) is preferred, but in consultation with the Director of Undergraduate Studies, students may elect to forego taking an introductory course.
4. One other philosophy course, or a related course outside the department that has been approved by the Director of Undergraduate Studies.

**OTHER INFORMATION**

All courses must be taken for a letter grade and students must earn a C or higher for the course to count toward the secondary field. No more than two courses may be introductory level (numbered below 97). Typically, all courses but one will be taken in the Philosophy Department. Approval for “related” courses must be obtained from the Director of Undergraduate Studies.

**ADVISING RESOURCES AND EXPECTATIONS**

The Director of Undergraduate Studies, Cheryl Chen (ckchen@fas.harvard.edu), is available for advice about the program and course selection. The Undergraduate Coordinator, Nyasha Bovell (nyashabovell@fas.harvard.edu), is also available for information about the program. All students interested in a secondary field are expected to register their interest with the department early on, and have an initial advising conversation with the Director of Undergraduate Studies.

# Physics

The goal of the Physics secondary field is to provide students with a quantitative introduction to the workings of the physical world, including the mind-bending but increasingly technologically important mysteries of quantum mechanics. The hierarchical structure of the field of physics makes it difficult for secondary field students to explore with the breadth and depth required for further work in physics; but the applications of Newtonian mechanics, electricity and magnetism, and waves/optics are so ubiquitous and important, and the concepts of special relativity and quantum mechanics so strange and wonderful, that these courses are far more than simply "consumption" of knowledge. They are designed to transform the way students understand and interact with the physical world.

**REQUIREMENTS: 4 courses (16 credits)**

1. One course in electricity and magnetism -- an introduction to electricity and magnetism, at the level of Physics 15b, Physical Sciences 12b, Applied Physics 50b, or higher.
2. One course in wave phenomena and/or optics -- an introduction to the physics and mathematics of wave phenomena from coupled oscillators to physical optics at the level of Physics 15c or higher.
3. One course in quantum mechanics -- a serious introduction to quantum mechanics at the level of Physics 143a or higher -- including wave and matrix mechanics, Dirac notation, the operator treatment of angular momentum, the hydrogen atom, and time-independent perturbation theory.
4. One additional physics course at the 100 level or higher, exploring an important field in physics. For this purpose, Applied Physics courses, and other 100-level courses that count as Physics courses for the Physics concentration may also be applied to the secondary field. Suggested courses include: Physics 181, Physics 125, Physics 143b, and Physics 195.

**OTHER INFORMATION**

Physics courses taken at other institutions may be substituted for substantially equivalent Harvard courses with the permission of the director of undergraduate studies.

Students who substitute more advanced courses for Physics 15b and/or 15c must complete the lab component of these courses, on a pass/fail basis. See the Co-Director of Undergraduate Studies for further information.

Pass/Fail: No more than one course may be taken Pass/Fail.

Mathematics background at least at the level of Math 21a and 21b are prerequisites for many of the courses in this program.

The prerequisite for the course in electricity and magnetism (15b, 12b, or 50b) is a mechanics course (15a, 16, 19, 12a, or 50a), or the permission of the Director of Undergraduate Studies.

**ADVISING RESOURCES AND EXPECTATIONS**

Secondary field students should meet with the Co-Director of Undergraduate Studies, David Morin (djmorin@fas.harvard.edu) to make sure that they can satisfy the secondary field requirements. Students will be included with Physics and Chemistry & Physics concentrators in appropriate department

meetings and social events if they are making satisfactory progress. Upon completion of the secondary field requirements, the Co-Director of Undergraduate Studies will review and approve the final form printed from the secondary fields web tool, confirming that the requirements have been met. This signed form must be submitted to the Registrar's office.

We encourage students interested in physics as a secondary field to submit their secondary fields course plan to the department as soon as possible after they have chosen a primary concentration. We will make every effort to encourage students interested in the secondary field to contact us for advising conversations in their freshman year.

## Psychology

Psychology, as a science of the mind, connects naturally to other fields in the humanities, social sciences, and life sciences. Completion of a secondary field in Psychology can serve as a complement to other concentrations or allow students to explore an independent interest in psychology. The secondary field provides a basic foundation in psychology and its research methods while also permitting a general overview of the field, or a more focused exploration of one subfield or several subfields of psychology, including experimental psychopathology, social psychology, cognition/brain /behavior, and developmental psychology.

**REQUIREMENTS: 6 courses (24 credits)**

**All courses must be taken for a letter grade unless that option is not available.**

1. *Introductory Course*: Psychology 1: Introduction to Psychological Science (formerly Science of Living Systems 20), or an approved substitute:
    1. PSYC S-1, offered in the Harvard Summer School.
    2. *Note*: It may be possible to substitute a Psychology AP score of 5 or IB score of 7, in which case an extra advanced course will be required. Please contact the Psychology Undergraduate Office at psychology@wjh.harvard.edu to learn more
2. *Statistics*: Psychology 1900 or Stat 100, 102 or 104, passed with a grade of C- or higher. Petitions to substitute other quantitative methods courses taken as part of a student's concentration will be considered on a case-by-case basis and are approved only if there is substantial overlap in content with Psychology 1900. These petitions should be submitted as early as possible, ideally before enrolling in the alternate course.
    1. *Note*: Harvard Summer School courses or study abroad courses cannot fulfill this requirement.
3. *Foundational Course*: At least one foundational course from: Psychology 14, 15, 16, 18; Science of Living Systems 15; or Neuroscience 80 (formerly Molecular and Cellular Biology 80) or Molecular and Cellular Biology 81.
    1. *Note*: Harvard Summer School courses or study abroad courses cannot fulfill this requirement.
4. *Advanced Courses*: Three Advanced Courses in psychology of the student's choosing, which reflect the student's area(s) of interest, including:
    1. Most courses listed under Psychology as the Department in course search in courses.my.harvard.edu, with the following conditions:
        1. Any of the following courses that are not taken to meet the foundational course requirement may count as advanced courses: PSY 14, 15, 16, 18, SLS 15, Neuroscience 80 (formerly MCB 80), and MCB 81 (Neuroscience 80/MCB 80 and MCB 81 may not both be taken).
        2. Only one Lab Course (from a list on the concentration website) or PSY 910r may count toward this requirement.
        3. Psychology courses that will not meet this requirement are marked in the course description found in courses.my.harvard.edu as not counting toward concentration course credit.
        4. Psychology counts only a very small number of courses that are from other departments, specifically only counting those that are cross-listed as being in the Psychology Department in course search in courses.my.harvard.edu and listed on the Psychology undergraduate website under Departmental Advanced Courses. These

courses are often taught by Harvard Psychology Faculty but are from other departments (e.g., specified Freshman Seminars, General Education courses).

2. Regarding courses from other departments, students completing the secondary field MAY NOT count any of the "Expedited Non-departmental Courses" that are only approved to count as Advanced Courses for concentrators (see list for courses that DO NOT COUNT). Please note that petitions for Advanced Course credit will not be accepted for the secondary field. Beginning in 2011-12, the secondary field in psychology will only count a Non-departmental Course if it is cross-listed as being in the Psychology Department using course search in courses.my.harvard.edu (see 4.A.d. for details).
3. Harvard Summer School Psychology courses may only count toward this requirement if taught by regular Harvard Psychology Department faculty and listed on the concentration website as an approved departmental course. No other summer school courses may count.
4. Only one Freshman Seminar, which must be taught by a regular Harvard Psychology Department faculty member and listed as an approved departmental advanced course, may count toward this requirement. Freshman seminars not on the approved list may not count for the secondary field.
5. Courses taken during study abroad may not count for the secondary field unless they are offered through the Harvard Summer School and are on the list of approved departmental advanced courses.

**OTHER INFORMATION**

Students are encouraged to take Psychology 1: Introduction to Psychological Science (formerly Science of Living Systems 20: Psychological Science) as early as possible. Ideally, Psychology 1900 or Statistics 100, 102, 104 should be taken before Advanced Courses as well, because the courses provide grounding in the analytic tools central to psychology as a science. Foundational Courses should be taken after taking Introduction to Psychological Science but prior to any other Advanced Courses, because these courses provide a solid foundation required in upper level courses and are often prerequisites for these courses.

All courses must be taken for a letter grade unless that option is not available, and Psychology 1900 or Statistics 100, 102, or 104 must be passed with a grade of C- or higher.

Enrollment in psychology Advanced Courses is often limited and students pursuing a secondary field in Psychology will ordinarily not be given preferential access to limited enrollment courses.

**ADVISING RESOURCES AND EXPECTATIONS**

Students should notify the department as early as possible of their intent to pursue a secondary field so that they will be informed of department policies and deadlines. The College deadline for declaring a secondary field in my.harvard is in the student's final term.

Students should review the Frequently Asked Questions as early as possible to be aware of specific guidelines that apply to the secondary field requirements. General information requests and questions can be sent to the Psychology Undergraduate Office at psychology@wjh.harvard.edu. Students requiring additional advice about the program and course selection may meet with someone in the Psychology Undergraduate Office, William James Hall 218, during walk-in hours posted online.

# Comparative Study of Religion

Recent global and national political events reinforce the fact that the study of religions is vital to understanding the world. Central problems in a wide range of fields—economics, government, sociology, ethics, history, and many others—can be adequately addressed only by taking religion into account. Competency in religious studies indicates the ability to think critically and with historical and cultural learning about the complicated place of religious motivation, memory and ritual meaning in national and international affairs. Such skills have become one marker of an educated person, who is appropriately prepared for the responsibilities and pleasures of democratic citizenship and leadership.

The Committee on the Study of Religion offers courses on religious traditions from around the world and across history, from ancient to contemporary periods. We also offer a wide range of approaches to the

study of religion, including ethnographic studies of contemporary communities, philosophy of religion, historical studies, and close examination of classic texts from major religious traditions. Additionally, courses from other departments can sometimes count for credit toward a secondary field.

Students have the option of focusing their course work on a particular religious tradition (such as Judaism, Buddhism or Islam), historical complex (such as religion in the Modern West or South Asian Religion) or approved thematic approaches (such as Religion and Social Science, Religion, Gender and Sexuality, or Religion and the Arts). Approved thematic areas depend on available faculty and course offerings.

**REQUIREMENTS: 6 courses (24 credits)**

- Two general, methodological or comparative courses. At least one of these must be an approved introductory or comparative course, or the sophomore tutorial (Religion 97).
- Four other courses approved by the Director of Undergraduate Studies.

**OTHER INFORMATION**

Students may count one non-letter-graded course taken at Harvard for secondary field credit. Courses from study abroad, Harvard Summer School, or other Harvard schools may be counted toward the secondary field, with the advanced approval of the Director of Undergraduate Studies. The decision whether to grant students pursuing a secondary field in religion preference in access to seminars will be left to individual professors.

**ADVISING RESOURCES AND EXPECTATIONS**

Students interested in pursuing a Secondary Field should contact the Director of Undergraduate Studies to schedule an advising conversation, which is expected of all Secondary Field students. Please contact Courtney Bickel Lamberth (617-495-2085; lamberth@fas.harvard.edu).

# Romance Languages and Literatures

Undergraduates who choose a secondary field in Romance Languages and Literatures (RLL) discover the literatures, cultures, and critical approaches of societies worldwide where French, Italian, Portuguese, Spanish, and Catalan are spoken. RLL offers language courses from the beginning to advanced levels, as well as opportunities for accelerated work and study abroad. The heart of the secondary field consists of courses about literature and society taught in French, Italian, Portuguese, and Spanish. Faculty also offer advanced courses in English on special topics that involve more than one language tradition. These are listed as Romance Studies and count toward the secondary field.

*RLL offers the secondary field in four major areas of study:*

- French
- Italian
- Portuguese
- Spanish

Each of these options requires 5 courses (20 credits). The requirements for the four options are similar, except that in Italian and Portuguese two advanced language courses may count instead of one in French and Spanish. This difference takes into account the fact that students in Italian and Portuguese are more likely to have started their language study in college.

While RLL requires certain levels of courses, the department does not impose any thematic limits within each special field. Students may focus on a particular period, genre, or cultural issue, or they may explore a variety of areas their field. They may also fulfill one of the requirements for the secondary field with one course in a related field offered in another program or department (e.g., a course on the history of Latin America or on Italian Renaissance art).

**REQUIREMENTS: 5 courses (20 credits)**

**French**

1. A maximum of one French course at the 40s-60s level.
2. A maximum of two French courses at the 70s-80s level.
3. At least two French courses at the 100 level or above. One of these two courses can be replaced by a Romance Studies course at the 70 level or above.
4. At least three courses must be taught in French.

Students who plan to pursue a secondary field in French are required to meet at least once to discuss their choice of courses with the Undergraduate Adviser in French, Kathy Richman (richman@fas.harvard.edu), or with the Undergraduate Program Coordinator, Cathy Downey (cdowney@fas.harvard.edu).

**Italian**

1. A maximum of two Italian courses at the 40-60 level.
2. At least three Italian courses at the 70-level or above. One of these three courses can be replaced by a Romance Studies course at the 70 level or above.
3. At least three courses must be taught in Italian.

Students who plan to pursue a secondary field in Italian are required to meet at least once to discuss their choice of courses with an Undergraduate Adviser in Italian, Elvira G. Di Fabio (edifabio@fas.harvard.edu -- Fall 2019) or Ambrogio Camozzi Pistoja (acpistoja@fas.harvard.edu -- Spring 2020), or with the Undergraduate Program Coordinator, Cathy Downey (cdowney@fas.harvard.edu).

**Portuguese**

1. A maximum of two Portuguese courses at the 40-60 level.
2. At least three Portuguese courses at the 70-level or above. One of these three courses can be replaced by a Romance Studies course at the 70 level or above.
3. At least three courses must be taught in Portuguese.

Students who plan to pursue a secondary field in Portuguese are required to meet at least once to discuss their choice of courses with the Undergraduate Adviser in Portuguese, Viviane Gontijo (vivianegontijo@fas.harvard.edu), or with the Undergraduate Program Coordinator, Cathy Downey (cdowney@fas.harvard.edu).

**Spanish**

1. A maximum of one Spanish course at the 40-60 level.
2. A maximum of two Spanish courses at the 70-80 level.
3. At least two Spanish courses at the 100 level or above. One of these two courses can be replaced by a Romance Studies course at the 70 level or above.
4. At least three courses must be taught in Spanish.

Students who plan to pursue a secondary field in Spanish are required to meet at least once to discuss their choice of courses with the Undergraduate Adviser in Spanish, María Luisa Parra (parra@fas.harvard.edu), or with the Undergraduate Program Coordinator, Cathy Downey (cdowney@fas.harvard.edu).

**OTHER INFORMATION**

Secondary field students can take any RLL course offered in their chosen track (from levels 40 to 200) except for the senior tutorial (99). Students in Italian, Portuguese, and Catalan may enroll in supervised reading and research (91r), as needed.

All courses must be taken for a letter grade, with the exception of an approved Freshman Seminar. Of the 5 required courses, one may be in a related field offered in another department; 2 courses may be taken abroad when approved by both the Office of International Education and RLL for Harvard credit; and courses may be taken at the Harvard Summer School. Students will need their RLL adviser's permission for these three options.

**ADVISING RESOURCES AND EXPECTATIONS**

Students who plan to pursue a secondary field in Romance Languages and Literatures are required to meet at least once for an advising session with the Undergraduate Adviser in their chosen track before they have taken all of their courses. That Undergraduate Adviser, Director of Undergraduate Studies, or the Undergraduate Program Coordinator must approve the final application for secondary field credit. For more information students may also contact the Undergraduate Program Coordinator, Cathy Downey (cdowney@fas.harvard.edu).

## Russia, Eastern Europe, and Central Asia

The secondary field in Regional Studies: Russia, Eastern Europe, and Central Asia (REECA) offers students the opportunity to pursue interdisciplinary work on the history and society of this world region. The field requirements are based on the premise that when studying society and culture, the integration of various academic disciplines allows insights unobtainable within the confines of a single discipline. While the field may integrate the study of language, literature, and culture, the primary emphasis here is on the social sciences, including history.

**REQUIREMENTS: 5 courses (20 credits)**

1. A minimum of three courses (12 credits) must be in the social sciences (e.g., Anthropology, Economics, Government, History).
2. A minimum of three courses (12 credits) must be taught by Davis Center Faculty Associates.
3. A minimum of three (12 credits) courses must be regular departmental courses (i.e., not General Education courses or Freshman Seminars).
4. The five courses must be distributed across at least two different disciplines or departments.
5. One course (4 credits) of relevant language study may count towards the secondary field. For Russian, students may count any course at the level of Russian 103 or higher. For non-Russian languages of the region, students who complete at least one full year (8 credits) of study may count 4 credits towards the secondary field.

**OTHER INFORMATION**

To browse region-related courses that may be eligible for secondary field credit, enter “reeca” in the course search field on my.harvard.

All courses must be taken for a letter grade and must be completed with a grade of B- or above, with the exception of Freshman Seminars, which may be applied toward the secondary field with a grade of SAT. Credit for courses from Harvard Summer School and other Harvard faculties may be granted upon petition. Study abroad is encouraged, and 4 units of study abroad credit may be applied toward the secondary field, with prior approval of the REECA academic adviser. *Please note: the Davis Center cannot guarantee students pursuing a secondary field preferential access to limited-enrollment courses.*

**ADVISING RESOURCES AND EXPECTATIONS**

Donna Griesenbeck (griesenb@fas.harvard.edu; 617-495-1194), Davis Center Student Programs Officer and REECA Coordinator, is available to advise students on the program and course selection and refer students to individual faculty as needed. Students are encouraged to register their interest with the REECA Coordinator so they can begin the advising process and be added to Davis Center mailing lists.

## Slavic Languages and Literatures

The Department of Slavic Languages and Literatures provides a broad array of courses in the languages, literatures, and cultures of Russia, Ukraine, Poland, the Czech Republic, Bosnia, Croatia, and Serbia. For a secondary field, we offer two options: Central European Studies or Russian Studies. Both require students to take 5 related courses and offer ample scope for interdisciplinary and comparative work. We offer students the chance to work closely with Slavic faculty in order to develop a program of study suited to their own interests, rather than just an accumulation of five loosely related

courses. *For this reason, we ask that interested students notify the Director of Undergraduate Studies as soon as possible, so that we can begin to work with you to plan your program*.

**REQUIREMENTS: 5 courses (20 credits)**

**Central European Studies**

1. At least three courses in Central European literature and culture (broadly speaking, Bosnian-Croatian-Serbian, Czech, Polish, or Ukrainian) in the Slavic department.
2. Up to two thematically relevant courses offered by departments such as History, German, Government, Literature, Jewish Studies/NELC, Social Studies, and VES may be counted with the approval of the Slavic director of undergraduate studies.
3. One language course in Czech, Polish, Ukrainian, or Bosnian-Serbian-Croatian may be counted instead of one of the courses in item 2.

**Russian Studies**

1. At least three courses in Russian literature and culture from the Slavic department, including at least one survey course in Russian literature.
2. Up to two thematically relevant courses offered by departments such as History, German, Government, Literature, Jewish Studies/NELC, Social Studies, and VES may be counted with the approval of the Slavic Department's Director of Undergraduate Studies.
3. One language course in Russian may be counted instead of one of the courses in item 2.

**OTHER INFORMATION**

All courses (except for Freshman Seminars) must be letter graded. Slavic-related Gen Ed courses and Freshman Seminars are permitted. Any number of relevant Gen Ed courses and one Freshman Seminar may be counted. Students may use Harvard-approved study abroad credit to count for up to two courses toward the secondary field; they should consult with the Director of Undergraduate Studies before going abroad to make sure their proposed courses will be eligible for their secondary field program. Students are required to take a minimum of two 100-level courses.

**ADVISING RESOURCES AND EXPECTATIONS**

All students interested in pursuing a secondary field from the Slavic department should contact the Director of Undergraduate Studies, Professor Aleksandra Kremer (akremer@fas.harvard.edu), as soon as possible to discuss their program of study. She will serve as the primary adviser for students in the secondary field, although they will also be welcome to consult with other Slavic faculty, and the expectation will be that students will monitor their own progress towards fulfillment of the requirements.

# Sociology

The secondary field in Sociology provides students with exposure to the bedrock theoretical ideas and empirical strategies of sociology while also allowing for a diverse, flexible plan of study.

Sociology emphasizes the successful integration of theory and empiricism, teaching the importance of both elegant thinking and analytical rigor. It is a broad, multi-paradigmatic field that concerns itself with the entire range of human social interaction. Sociology also embraces a wide variety of "strategies of knowing," from quantitative analysis to archival and ethnographic research.

Students concentrating in other fields may well find this a useful supplement to their primary field of instruction. Sociology is an inter-disciplinary field that bridges topics that are often studied in isolation elsewhere in the social sciences. Concentrators in other fields may find it illuminating to see their "home" topic from this sociological perspective.

Sociology teaches analytical and methodological skills relevant to a wide range of professions.

**REQUIREMENTS: 5 courses (20 credits)**

1. Sociology 97: Tutorial in Social Theory, an introduction to sociological theory and the social construction of knowledge. Offered both terms.
2. Sociology 128: Methods of Social Science Research, a basic introduction to methods. Offered spring term.
3. Three concentration electives, one of which must be an advanced-level course (Sociology 1100 or above). An introductory-level course (Sociology 1000-1089) is recommended but not required as part of this sequence.

**OTHER INFORMATION**

One of the three "concentration electives" may be taken Pass/Fail or SAT/UNS; Sociology 97 and 128 must both be taken for letter grades. Sociology 97 will ordinarily be taken in the sophomore year. Letter-graded courses must be passed with a grade of C+ or higher in order to receive credit toward completion of the secondary field. Courses taken abroad will not be counted towards a secondary field.

*Sociology 97*: Tutorial in Social Theory will be open to all enrolled undergraduates, including but not limited to secondary field students. Though junior tutorials are normally only open to concentrators, secondary field students may be allowed to enroll in junior tutorials for credit as electives but are not obligated to do so. Special permission from the Associate Director of Undergraduate Studies is required for secondary field students to enroll in junior tutorials.

**ADVISING RESOURCES AND EXPECTATIONS**

For information about the secondary field, please contact Laura Thomas (lthomas@wjh.harvard.edu). For advising, please see the Associate Director of Undergraduate Studies in Sociology, Hilary Holbrow (hholbrow@fas.harvard.edu). The office is located on the 6th floor of William James Hall, 33 Kirkland Street.

# South Asian Studies

The secondary field in South Asian Languages, Literatures, and Cultures or South Asian Studies requires five courses.

**REQUIREMENTS: 5 courses (20 credits)**

1. Up to two courses at any level in a South Asian language, and up to one additional language course on special topics taught by faculty in the Department of South Asian Studies. Note: The secondary field does not require any language courses
2. One 100-level non-language course in South Asian Studies. This requirement may be satisfied by a departmental course or a course with a South Asia emphasis offered in another department, with the approval of the Director of Undergraduate Studies.
3. Additional non-language courses in South Asian Studies to complete a total of five courses. These courses may include departmental offerings and courses with a South Asia emphasis offered in other departments or as General Education courses, with the approval of the Director of Undergraduate Studies.

*Note: Courses may not be double counted towards a secondary field in South Asian Studies and a language citation in a South Asian language.*

**OTHER INFORMATION**

Study abroad programs of a summer, a semester, or a year may be approved for credit toward the secondary field.

Freshman Seminars may be counted for the secondary field. Other courses for the secondary field should be letter graded.

**ADVISING RESOURCES**

The Director of Undergraduate Studies, Richard Delacy (rdelacy@fas.harvard.edu; (617) 496-4749) is

available for advising and information.

## Statistics

The Harvard Statistics Department has always had a strong methodological and application-oriented focus, and it has consequently attracted students with their primary focus in another discipline, such as Psychology, Economics, Sociology, Government, Earth and Planetary Sciences, or Biology (both OEB and MCB). These students aim to gain a solid background in statistics so that they can apply it in their primary field or fields of interest.

**REQUIREMENTS: 4 courses (16 credits)**

1. Statistics 110: Introduction to Probability.
2. Statistics 111: Introduction to Theoretical Statistics.
3. Two additional courses in Statistics, with course numbers above 111. Statistics 109, Computer Science 109A, Computer Science 109B, Computer Science 181 (or Computer Science 281), and MCB 112 can also be counted toward this requirement.

**OTHER INFORMATION**

All courses must be letter-graded and taken during the academic year. Harvard Summer School courses do not count toward the requirements. Courses taken during study abroad would not normally count toward the secondary field requirements. A minimum grade of C is required in all secondary field courses.

Mathematics preparation including multivariable calculus and linear algebra at the level of Mathematics 19A and 19B or equivalent or above (such as Mathematics 21A for multivariable calculus and Mathematics 21B for linear algebra) is a prerequisite for many Statistics courses numbered 110 and above.

**ADVISING RESOURCES AND EXPECTATIONS**

Interested students should contact the Director of Undergraduate Studies, Professor Joseph Blitzstein (blitzstein@stat.harvard.edu) or the Associate Director of Undergraduate Studies, Professor Kevin Rader (krader@fas.harvard.edu), who serve as advisers for the secondary field in Statistics, and the Student Programs Administrator, Kathleen Cloutier, Science Center 400E (617-496-1402, cloutier@fas.harvard.edu). Further information is available on the Statistics concentration webpage at http://statistics.fas.harvard.edu/pages/undergraduate-statistics-general-information.

## Studies of Women, Gender, and Sexuality

The study of gender and sexuality has long constituted a vibrant and engaging arena for interdisciplinary work and intellectual inquiry. At the heart of this field is the assertion that gender and sexuality are fundamental categories of social organization and power that are inseparable from race, ethnicity, class, nationality, and other categories of difference.

The concentration in Studies of Women, Gender, and Sexuality (WGS) brings together a wide range of academic fields in the humanities, social sciences, and sciences (including history, literature, visual studies, anthropology, sociology, ethnic studies, political science, psychology, and biology, to name just a few). As an interdisciplinary field of study, WGS pays close attention to how social norms have changed over time and how they vary across cultures. The concentration also actively investigates the ways in which ideas about gender and sexuality have shaped public policy, civil rights, health care, religion, education and the law, as well as the depiction of women and men in art, literature, and the popular media. WGS courses are characterized by a strong commitment to critical thinking, as well as a spirit of open and sustained intellectual inquiry. Students take one foundation course in the history, methodology, or theory of gender and sexuality studies. The flexibility of the four remaining course requirements allows students to sample from the rich course offerings in WGS while developing core areas of interest.

**REQUIREMENTS: 5 courses (20 credits)**

One of the following: history foundation course (WOMGEN 1200) or theory foundation course (WOMGEN 1210).

Four other courses drawn from WGS offerings or from the list of courses that count for concentration credit.

**OTHER INFORMATION**

Students may petition to have one course from another department count toward the secondary field. Petition forms are available in the WGS office.

Students may petition to have a Freshman Seminar, a course from study abroad, or a course from Harvard Summer School count for the secondary field. If the Freshman Seminar or the Summer School course is taught by a faculty member with an appointment in WGS, the course would count as a "WGS course." If the course is not taught by a WGS faculty member, it would count as the student's one non-WGS course; other courses would need to be drawn from WGS course offerings.

No more than one course can be taken Pass/Fail or SAT/UNS. There is no grade minimum (as long as it is a passing grade) for the courses taken for secondary field credit.
Students pursuing a secondary field in WGS will receive preferential access to limited-enrollment courses. Concentrators will be admitted first, but secondary field students will be the next preferred group.

**ADVISING RESOURCES AND EXPECTATIONS**

Students who are considering a secondary field in Studies of Women, Gender, and Sexuality should meet with Director of Undergraduate Studies Caroline Light (617-495-1964, clight@fas.harvard.edu) or Associate Director of Undergraduate Studies Linda Schlossberg (617-496-9853, schloss@fas.harvard.edu), as soon as possible. Students should also inform the program using the Secondary Fields Web Tool in order to receive preferential access to limited-enrollment courses. Secondary field students are required to have an advising meeting with the director or assistant director of undergraduate studies by the end of their junior year to discuss their plans of study.

Please note: Students are responsible for observing the registrar's deadlines for filing secondary field forms in order to receive institutional acknowledgment of their completion of a secondary field. See the calendar to determine appropriate deadlines.

# Theater, Dance & Media

Theater, Dance & Media (TDM) at Harvard includes the study and practice of theater, dance, and media (media is taught primarily in so far as they relate to the performing arts). The goal of this secondary field is to encourage and make possible a mix of studio training and text-based academic course work. Many departments and degree programs offer courses centered on theater, dance, and media and these courses represent a variety of approaches and emphases for the study of the history and aesthetics of these performing arts. Students electing a secondary field in Theater, Dance & Media are urged to choose complementary offerings that make a coherent unit of their combined scholarly and practical studies.

**REQUIREMENTS: 5 courses (20 credits)**

1. At least two practice-based or studio courses (acting, directing, dance, choreography, dramaturgy, design, etc.), most of which are offered under TDM in courses.my.harvard.edu.
2. At least two courses focused on critical and scholarly approaches from either the courses sponsored by TDM or from the list of cross-listed courses.
3. One additional course from either list.

**OTHER INFORMATION**

*Pass/Fail*: With the exception of approved Freshman Seminars, all courses must be taken for letter grades. Grades should be B- or above.

*Summer School/Study Abroad*: Students may petition the Committee on Degrees in Theater, Dance, and Media to have Harvard Summer School courses or study abroad courses count towards the secondary field by submitting full descriptions of these courses to the Director of Undergraduate Studies (DUS) of TDM for approval.

*Limited Enrollment Courses*: Secondary field students will not be granted preferential access to limited enrollment courses. Individual faculty members will determine the priority of enrollment.

**ADVISING RESOURCES AND EXPECTATIONS**

Students pursuing a secondary field are urged to seek out faculty members of the Committee on Degrees in Theater, Dance, and Media for advice on their specific course choices.

For more information on the secondary field and for advising, please see the TDM website or contact the Director of Undergraduate Studies.

# Translation Studies

The secondary field in Translation Studies offers students the opportunity to undertake a sustained study of the theory and practice of translation. More than simply examining how meaning is transferred from one language to another, translation studies opens up a space to examine linguistic encounter and exchange across languages, as well as across multiple cultures and disciplines. Students who pursue a secondary field in Translation Studies will root their translation work within language study, but they will be able to expand their engagement with the art and craft of translation to encompass questions raised by different genres, media, and disciplinary questions and practices.

Housed in the Department of Comparative Literature, the secondary field in Translation Studies allows students to deepen their interaction with a non-English language, to take courses across departments which consider a range of theoretical issues raised by the process of translation (e.g., problems of language and style, issues of power dynamics in the uneven global landscape, and strategies for reinscribing elements of a non-English text within an American or Anglophone context), and to engage in a capstone translation project.

Students who pursue a secondary field in Translation Studies must be sufficiently proficient in a non-English language to translate a non-English work into English. This proficiency can be demonstrated through 1) the completion of one upper-level language course (see attached list); or 2) an hour-long translation exam administered by the Department of Comparative Literature. If a student wishes to work in a non-English language not offered at Harvard, every effort will be made to find local resources to support the interest.

The secondary field in Translation Studies will likely be of particular interest to students concentrating in the Humanities; but the participation of students from outside of the Humanities who are interested in translation and intercultural communication is strongly encouraged as well.

**REQUIREMENTS: 5 courses (20 credits)**

- 1-2 foundational courses offered in the Department of Comparative Literature on the history and/or theory of translation or the transnational intersection of languages and literatures (e.g., Comp Lit 108: Translating World Literature; Comp Lit 109: On Translation; Comp Lit 264: Thinking and Writing Transculturally; Comp Lit 281: Rhetoric, Imitation, Translation)
- 1-2 upper-level language courses focusing on translation into and/or from a non-English language. See list of recommended courses.
- 1-2 courses that consider translational issues from a variety of subjects or disciplines (e.g., CS 287r: Machine Learning for Natural Language; Freshman Seminar 36g: The Creative Work of Translating; Sp 150: Understanding Migration through Film and Photography; TDM 183M: From History to Hamilton: Contemporary Non-Fiction Theater and How to Make it)
- One capstone project involving the translation of a non-English work into English, with critical commentary and introduction. Students will participate in a 4-credit semester-long workshop led by members of the Comparative Literature faculty in which they will develop their project and present

their work in progress.

*In addition to the required coursework, students pursuing a secondary field in Translation Studies will be encouraged to participate in various local co-curricular seminars, workshops, and presentations addressing issues in the field (e.g., the Re-thinking Translation Seminar at the Mahindra Humanities Center, the Boston University lecture series on translation, Woodberry Poetry room events, etc.).*

**OTHER INFORMATION**

All courses, with the exception of Freshman Seminars ,which are graded SAT/UNS, must be taken for a letter grade and passed with a B- or better. Students pursuing a secondary field in Translation Studies may take one Freshman Seminar for credit.

Harvard approved study abroad courses taken either during term time or through a Harvard Summer School study abroad program may count towards the secondary field in Translation Studies with approval from the Director of Undergraduate Studies.

Students may double-count one course for concentration credit and for secondary field credit.

**ADVISING RESOURCES AND EXPECTATIONS**

The Director of Undergraduate Studies (snaddaff@fas.harvard.edu) will oversee the secondary field in Translation Studies, and students are encouraged to consult her for advice and information. They should also consult the Translation Studies link on the Comparative Literature department website which lists relevant courses and other information and events of interest.

Students should declare a secondary field in Translation Studies through the "My Program" section of my.Harvard as soon as possible, but no later than the course registration deadline of the first semester of senior year.

# Art, Film, and Visual Studies

The principal educational goal of the Department of Art, Film, and Visual Studies (AFVS) is to provide students in a liberal arts college with an opportunity to gain an understanding of visual quality and expression through both study and practice. The aim is to achieve an understanding of the structure and meaning of the visual arts and culture through practical and theoretical explorations of media such as drawing, film, painting, performance, photography, printmaking, sculpture, sound, video, and writing. In addition to offering a regular concentration in these areas, the department also offers students the opportunity to explore AFVS as a secondary field. Specifically, the secondary field offerings reflect the department's diversity by providing students with four distinct areas of focus. In each area a total of six courses are required; however, each area has its own set of requirements and students may choose only one area when filing for a secondary field. **Ordinarily, secondary field credit is only granted for courses taken in residence. To count courses from outside of AFVS, students must petition the department prior to taking the course.**

**REQUIREMENTS: 6 courses (24 credits)**

**Film/Video**

Art, Film, and Visual Studies offers a secondary field in film/video production. Courses in film, video, and animation may be arranged in any combination to maximize each student's interests. This field is imagined to be of particular value as a complement to disciplines that include the study of culture—such as anthropology or area studies—where the moving image can be used as a tool for observation and research.

Four AFVS courses in film or video making; at least one course should be introductory-level and at least one should be intermediate-level.

Two courses in the history or theory of the moving image offered in the AFVS department.

**Film and Visual Studies**

Art, Film, and Visual Studies offers a secondary field in film and visual studies for students wishing to explore the history and aesthetics of moving image media in conjunction with other disciplines in the arts and humanities.

Resolutely interdisciplinary in its impetus, this track offers rigorous training in film and visual studies with a blend of theoretical, analytical, and historical perspectives. It is designed to cultivate critical awareness and analytical understanding regarding the place of moving images within larger histories and their connections both to traditional and emerging arts, disciplines, and fields of endeavor. To this end, film and visual studies draws on the unique strengths of AFVS and FAS faculty, the Harvard Film Archive's vast holdings of films and documents, and the rich resources of the Carpenter Center for the Visual Arts and the Harvard Art Museums.

1. *Introductory Courses*: Two courses comprising AFVS 70, "The Art of Film" and one other double-digit seminar or lecture course in film and visual studies. ***Students may petition to count an appropriate triple-digit course towards this requirement, per the discretion of the DUS***.
2. Four additional courses in film and visual studies offered in the AFVS department. Courses in film theory and other approved film and visual studies courses may be obtained from the Manager of Academic Programs.

**Studio**

Four studio courses (of the student's choosing) in drawing, mixed media, painting, photography, printmaking, sculpture, and video/installation art; at least one course should be introductory-level, and one should be intermediate-level.

Two lectures or seminars in art history or theory, ordinarily offered by the Department of Art, Film, and Visual Studies. One art history or theory course offered in the Department of History of Art and Architecture may also be counted with AFVS department approval.

Students can review the AFVS secondary field requirements checklist on the AFVS Department website under the "Forms" section in the "Undergraduates" menu.

**OTHER INFORMATION**

Courses in the studio arts and film/video production are, of necessity, small and intensive, and priority is given to concentrators. Additionally, some courses in environmental studies and film and visual studies also have an enrollment limit. Students wishing to pursue any of these areas as a secondary field are welcome to apply to limited-enrollment classes, but will not be given preferential access to them.

All secondary field courses must be taken for a letter grade with the exception of a Freshman Seminar given by a AFVS faculty member. There is no minimum grade for counting courses for the secondary field.

Harvard Summer School and study abroad courses taught by department faculty may count towards the secondary field. Students may petition the department to count, at most, one related study abroad or summer school course taught by non-department faculty by submitting a course requirement substitution form, available from the Manager of Academic Programs or on the department's website. Approval occurs after the course is completed and the syllabus and work are reviewed by the Director of Undergraduate Studies. It is therefore advisable to check with the Director of Undergraduate Studies before making plans.

Up to one related cross-listed course may count toward the secondary field.

**ADVISING RESOURCES AND EXPECTATIONS**

Both the Director of Undergraduate Studies, Ruth Lingford (Lingford@fas.harvard.edu) and the Manager of Academic Programs, Paula Soares (soares@fas.harvard.edu), advise students pursuing a secondary field in AFVS. Students do not declare a secondary field through the department as they do when applying for a concentration, but it is recommended that the students use the secondary fields web tool to indicate their interest in the AFVS secondary field. To be added to the department's mailing list and to receive information about courses and events in the department, students should also inform the Manager of Academic Programs of their interest in the AFVS secondary field.

# Student FAQs

1. **Are students expected or required to pursue a secondary field?**
   - No. Secondary fields are entirely optional and may not be the best option for all students. A secondary field provides the opportunity for guided and recognized work in a field outside of the concentration. However, pursuing a secondary field will reduce the number of available electives and could prevent students from taking advanced work in their concentration, pursuing research, or spending time abroad. Students and their advisers should discuss why they want to pursue a secondary field before embarking on one.

2. **When and how do students sign up for a secondary field?**
   - Please see here for instructions on how to declare a secondary field. No secondary field may be added to the degree after the deadline published in the Handbook for Students. The deadline is firm; no exceptions will be made. After students declare a concentration, they may notify a program of their interest. Some programs require that students notify them early; others have no such deadlines. Students should check the information listed under “Advising Resources and Expectations” for each program for more information.

3. **Can students design their own secondary fields, similar to a special concentration?**
   - No. Secondary fields must be sponsored by a department, concentration, or other curricular committee of the Faculty.

4. **Can a student receive credit for more than one secondary field?**
   - No, students may choose only one secondary field.

5. **Can a student who is pursuing a joint concentration also do a secondary field?**
   - Yes. Students and their advisers should carefully discuss the benefits and drawbacks of pursuing a joint concentration and a secondary field.

6. **Do secondary fields appear on the transcript or diploma?**
   - The successful completion of a secondary field will appear on a student's academic transcript, but will not appear on the diploma. Only the name of the department or concentration will appear on the transcript, not the specific subfield or specialty (if there is one).

7. **Can courses in a student's concentration count for a secondary field?**
   - Only one course may double count for a secondary field and concentration. Courses count first for concentration, and then one may be double-counted for a secondary field. If a secondary field requires a full-year course that is also required by the student's concentration, the student may double-count that full-year course. [Revised January 2010]

8. **If the wrong courses are marked "conc" on a student record, what should a student do?**
   - Only a student's concentration may change which courses count or not count in the student’s advising report. Students must contact the concentration, who will make the necessary exceptions to update the student’s record. Concentrations have different policies around accommodating students who want to do a secondary field, and some combinations may not be possible. Students should check with their concentration about whether or not they are willing to change what counts for the concentration in order for the student to do a secondary field.

9. **Outside of the concentration, are there any restrictions on double-counting courses as fulfilling more than one requirement?**
   - Yes. Students enrolled in the Concurrent Masters Program may double-count no more than 16 credits (generally 4 courses). However, there is no limit to the number of courses that can double-count for the secondary field and General Education or any other requirement outside of concentration requirements.

10. **Can courses for study abroad or other Harvard Schools count for secondary fields?**
    - Each program has its own rules about whether courses from study abroad or other Harvard Schools can count. However, if a program does accept courses from study abroad, students

must follow the procedures set out by the Office of International Education in order to receive credit (see the OIE website for more information). These procedures parallel those required for students to receive concentration credit for study abroad.

11. **Can a student pursuing an AB/AM count "bracketed" courses for the secondary field?**
    - No. Only courses that count for an undergraduate degree can count towards the secondary field.

## Faculty FAQs

Please see the FAQs for students for general information about secondary fields.

1. **What are the guidelines for proposing a secondary field?**
    - Proposals should be sent electronically to Sarah Champlin-Scharff (scharff@fas.harvard.edu), in the Office of Undergraduate Education.
    - **All proposals should include the following (contact the Office of Undergraduate Education at oue@fas.harvard.edu for complete details):**
        - A cover letter from the department or program chair describing the secondary field and the rationale for its structure. This letter should also include a statement about the use of faculty, advising, and administrative resources. *Secondary fields must be undertaken using existing resources.* The cover letter should also describe the process by which the proposal was developed, including subcommittees and dates of faculty meeting discussions and votes.
        - A short paragraph with a description of the secondary field program and its structure. This paragraph should be aimed at undergraduates who might be interested in the program.
        - A list of course requirements, including the number of courses, and of what type. Please list any courses or set of courses that are required of all students. When possible, it is better to list categories of courses (methods, themes, subfields) than to list specific courses that may change on a yearly basis. Programs should keep a list of specific courses that count towards secondary field requirements updated on their own websites.
        - Other relevant information. Please note in the proposal whether courses from study abroad (which count for Harvard College credit), Harvard Summer School, or other Harvard schools would count for the secondary field; whether there is a grade minimum for courses to count for the secondary field, etc. *This section should also include a statement about whether or not students pursuing a secondary field will receive preferential access to limited-enrollment courses.*
        - Advising resources and expectations. Please provide information as to when and how a student should contact the program for advising information and identify who will serve as the main secondary field adviser and a contact person for additional information if different from the adviser.

2. **Are there any guidelines for required courses for a secondary field?**
    - Secondary fields should include between four to six required courses. Required courses should be offered on a regular basis, taught by ladder faculty, and ordinarily should not require the use of replacement or visiting faculty when regular faculty are on leave (unless the courses are required by the concentration regardless of the existence of a secondary field). If the secondary field is dependent on courses offered by another department, please confirm that the other department has been informed of your secondary field proposal, acknowledges the potential increase in enrollments, and confirms that the courses will be offered on a regular basis. Similarly, departments and concentrations should consult with related and adjacent fields to minimize duplication and overlap of secondary field offerings.
    - The Educational Policy Committee (EPC) encourages programs to include courses that require students to participate in the production of knowledge, not simply its consumption. Thus, ordinarily, programs should not rely primarily on introductory courses wherein students do not engage actively in the methods or approaches in the field. Similarly, if a program is only four courses, the EPC suggests that all courses be letter-graded; Freshman Seminars should not count unless a program requires five or six courses.

3. **Is there a schedule and deadline for accepting proposals for secondary fields?**
    - The Educational Policy Committee will accept proposals for review and approval on a rolling basis.

4. **Whom do I contact if my department or committee wants to offer a secondary field?**
    - Please contact Sarah Champlin-Scharff in the Office of Undergraduate Education (scharff@fas.harvard.edu; 617-496-2657), for more information.

5. **Are additional resources available to departments and programs offering secondary fields?**
    - No. Secondary fields must be undertaken using existing resources. Additional TF/TA support for regular courses whose enrollments have risen due to secondary field students will be considered part of the regular costs of courses and are not considered additional resources. However, the costs of additional tutorials or other small-group courses must be discussed with the Office of Undergraduate Education prior to submitting the proposal.

6. **What advising and administrative functions are required of departments and programs offering secondary fields?**
    - Advising functions include intellectual mentoring and guidance on course selection, and should involve both faculty and staff. The Educational Policy Committee encourages secondary fields that are designed in such a way as not to be overly-dependent on individual advising for their coherence and structure, but is aware that different programs will be structured in different ways.
    - Administrative functions include reviewing student records and certifying the completion of requirements before graduation (including checking that no more than one course is double-counted). We hope to keep these functions to a minimum, but some staff time will be required.
    - The process for the tracking of requirements as outlined by the College is a minimum expectation. Some programs want to include students pursuing a secondary field in department events and advising; others want to develop a program that is largely self-administered.

7. **What responsibility does a secondary field program have for approving or reviewing student records?**
    - Students will track their own requirements. If they have officially notified the program or filed for a secondary field, the secondary field adviser will have access to the student record through my.harvard. The my.harvard tool will also include a secondary field report listing all the courses that the student intends to count for the secondary field.

8. **How do secondary field advisers approve courses taken for Study Abroad for secondary field credit?**
    - The Office of International Education has established procedures for students who want to count courses from Study Abroad for secondary field credit. This requires the provisional approval from the adviser before the courses are undertaken, and a confirmation from the adviser after the course is complete. For more information, see the OIE website here.

# Secondary Field

You can find instructions for declaring a Secondary Field via my.harvard here.

(If you are having trouble with the form, please contact Enrollment Services: enrollment@fas.harvard.edu)

**The deadline for May and November 2021 graduates is April 1, 2021. The deadline for March 2021 graduates is December 1, 2020.**

No secondary field may be added to the degree after the deadline published in the *Handbook for Students*. The deadline is firm; no exceptions will be made.

**Considering a secondary field?**

Please speak with the secondary field in which you are interested. They can speak with you about the specific requirements for their program.

**Decided on a secondary field?**

If you decide to do complete a secondary field, *please notify the program of your interest* via my.harvard (see above).

> **Remember:** It is your responsibility to track your own progress, but you must talk to the secondary field adviser to make sure that the courses you choose will count for the secondary field.

**Changed your mind?**

Let the program know that you are no longer interested, and update your record on my.harvard.

# Directory of Resources

**Academic and Support Resources**

Advising Programs Office

Office of the Registrar

Harvard University Library System

Harvard University Art Museums

Harvard University Information Technology

Harvard Museum of Natural History

The Peabody Museum of Archaeology and Ethnology

Harvard Museum of the Ancient Near East

The Department of the History of Science Collection of Historical Scientific Instruments

Arnold Arboretum

Office of International Education

The Writing Center

Assistive Technology Center

Instructional Media Services

Language Resource Center

Piano Technical Services

Center for Workplace Development (CWD)

Academic Resources Center (ARC)

Accessible Education Office

Harvard University International Office

**Extracurricular Activities**

Office for the Arts at Harvard

Harvard Athletics

Harvard Foundation

Harvard College Women's Center

Phillips Brooks House Association (PBHA)

Public Service Network

Harvard Memorial Church

Board of Ministry and Harvard Chaplains

Harvard Student Agencies

Student Organization Center at Hilles (SOCH)

Office of Career Services

Harvard University Health Services

Office of Sexual Assault Prevention and Response (OSAPR)

Eating Concerns Hotline and Outreach

Peer Contraceptive Counselors

RESPONSE Peer Counseling

Room 13 Confidential Peer Counseling

University Ombudsman Office

Hearing Officers

Harvard University Police Department

Student Financial Services

Harvard Center for Wellness

Harvard COVID-19 Resources

Harvard Sustainability Student Action

## COVID-19 Emergency Policies 2020-2021

Housing Updates

Committee on Undergraduate Educational Policy (EPC) Updates

- Extensions of Time Fall 2020
- International Study Away
- Privacy Policy
- Simultaneous Enrollment
- Language Requirement Deadline Extension
- Course Administered Examinations
- Pass/Fail Deadline Fall 2020
- Extensions of Time Spring 2021
- Pass/Fail Deadline Spring 2021
- Credit for Summer 2021 Harvard Courses
- Credit for Summer 2021 Non-Harvard Courses

Due to the unique circumstances created by the COVID-19 public health emergency, housing assignments and arrangements for 2020-2021 and thereafter will depend on available capacity. It is possible that the College will have more students returning from a leave of absence or requirement to withdraw and seeking undergraduate residential housing than can be accommodated, and the College may not be able to house all returning students. In the event there is excess demand for housing in

2020–2021 or thereafter, Harvard will establish and share a process by which students returning from a leave of absence or requirement to withdraw may apply for undergraduate residential housing.

On February 12, 2021 the 2020-2021 Academic Calendar was removed from the *Handbook* and was replaced with a link directly to the FAS Registrar's Harvard College academic calendar.

Due to the COVID-19 pandemic, the Committee on Undergraduate Educational Policy (EPC) announced updates to certain *Handbook* policies. Below are those updates.

July 3, 2020 Extensions of time policy Fall 2020

> For the Fall 2020 semester, in response to the coronavirus pandemic, students may petition the Administrative Board for an extension of time up until January 15 to complete required work in a course, including laboratories, problem sets, or papers. In cases where the Administrative Board has in advance granted an extension of time, a temporary notation of EXT will be made. EXT is a temporary notation; a final grade must be given upon the expiration of the extension.

July 15, 2020: International Student Study Away.

> During academic year 2020-21 Harvard College international students may earn credit for work done at a local university in their country of residence. Institutions must be accredited and able to provide an official transcript or grade report upon completion of the term. All courses must adhere to a liberal arts and sciences curriculum and may not be pre-professional in nature. Earning credit for such study away will follow the same credit transfer policies as those applicable to study abroad.
>
> For detailed information about study away, please visit the Office of International Education website.

August 12, 2020: Privacy Policy

> The circumstances of remote teaching and learning require clear guidelines about the recording of class sessions by students and instructors. Course content and materials may be covered by copyrights held by the University or the instructor, and their unauthorized use may violate such copyrights as well as the privacy of other students in the course.
>
> An overview of the University's privacy and recording guidance is here (and in more detail here).
>
> **Instructor Recordings**
>
> Instructors are encouraged to record course sessions to provide robust options for students in distant time zones without requiring them to attend live class meetings before 7:15 am or after 10:30 pm in their local time zone, and may also record course sessions to make them available for use later in the semester.
>
> Students and instructors have reasonable expectations of privacy in regard to interactions in class as captured in such recordings. Further, recordings in which students are personally identifiable are subject to FERPA rules governing their distribution. For these reasons, course recordings should be made available on the Canvas site behind HarvardKey login so that they are available only to registered students and other members of the course community.
>
> **Student Publishing or Distribution of Course Materials**
>
> By attending course sessions remotely and accessing course recordings, students acknowledge that they may not post, publish, sell, or otherwise publicly distribute course materials without the written permission of the course instructor. Such materials include, but are not limited to, the following: video or audio recordings, assignments, problem sets, examinations, other students'

work, and answer keys.

Students who sell, post, publish, or distribute course materials without written permission, whether for the purposes of soliciting answers or otherwise, may be subject to disciplinary action, up to and including requirement to withdraw from the College. Further, students may not make video or audio recordings of class sessions for their own use without written permission of the instructor.

Students needing course recordings as an accommodation should contact the Accessible Education Office (AEO).

August 13, 2020: Simultaneous Enrollment

Due to the COVID-19 pandemic, all Harvard courses will be offered remotely, and many will offer options for students to view recorded lectures and engage synchronously with other elements of the course. As a result of this pedagogical shift, the faculty legislated policy on simultaneous enrollment will be suspended for the duration of remote teaching and learning. Students will be responsible for developing a reasonable schedule that will allow for attendance during all required synchronous components of each course.

September 8, 2020: Extended Timing for Language Requirement Completion

In order to provide maximum flexibility to students...for the academic year 2020-2021, the College will extend the deadline to complete the language requirement by one year for current sophomores and first-year students, giving them until before the start of their senior year to complete the requirement.

September 24, 2020: Course Administered Examinations

Due to Covid-19 dedensification of campus, all exams for Academic Year 2020-21 will be course-administered, including hourly, midterm, and final exams (which have previously been scheduled by the Registrar's Office). The administration of hourly, midterm, and final examinations are, therefore, the responsibility of the instructor for Academic Year 2020-21; ordinarily, hourly and midterm exams should be scheduled during regular class meeting times, and, ordinarily, final exams are scheduled in the Exam Group date designated for each course.

Instructors may not schedule any exams beyond the end of Examination Period. Instructors may not grant extensions of time for written work or make-up exams beyond the end of examination period without approval by the Administrative Board.

Petitions to the Administrative Board (https://handbook.fas.harvard.edu/book/administrative-board-harvard-college) to allow students to complete make-up examinations beyond the end of the Examination Period will follow the Board's procedures and deadlines for "Extensions of Time for Written Work." Students who anticipate needing an extension of time beyond the end of Examination Period to complete make-ups of course-administered examinations should contact their Resident Dean to initiate the petition to the Administrative Board. Please note that, following the EPC Emergency Policies for Fall 2020, "in response to the coronavirus pandemic, students may petition the Administrative Board for an extension of time up until January 15 to complete required work in a course, including laboratories, problem sets, or papers." https://handbook.fas.harvard.edu/book/covid-19-emergency-policies

Students granted extensions of time beyond the end of the Examination Period in two or more courses will not be allowed to enroll for the next term except by permission of the Administrative Board. Students granted extensions of time are not eligible to receive their degree until after final grades have been reported for all of their courses.

Students are responsible for learning the times of and links to exams in their courses and for arriving at their exams on time.

**Accommodations**

Undergraduate students with disabilities who are eligible for accommodations must have completed the registration process in advance with the Accessible Education Office, which will notify faculty of these eligibilities. Students who complete registration less than two weeks prior to

an exam may not be able to receive accommodations on that exam if the accommodations are not feasible to provide in the available timeframe. Accommodations such as extended time and stop-the-clock breaks will be provided by the faculty proctors. AEO will not provide proctors, physical spaces, or other supports for accommodated exams. Students who utilize any form of assistive technology will do so independently, after consultation with the AEO, and faculty are not expected to provide laptops or software for students. For more specific information or questions about final exam accommodations, please contact aeo@fas.harvard.edu.

**Examination Rules**

Students should adhere to the following rules during course-administered examinations.

- As has been Harvard College's practice, academic dishonesty on all exams (whether hourly, midterm, final, Registrar-scheduled, or course-administered) will continue to be considered exam cheating. For violation of the examination rules or dishonesty in any examination, a student may be required to withdraw from the College.
- During a remote proctored exam, students should ensure that they are in an appropriately private or semi-private space during the exam and that they and their workspace are viewable through the webcam.
- During bathroom breaks, students must leave all exam course materials, calculators, and electronic devices at their desk. Students may not use computers, telephones (land line or cellular), tablets, or other communication devices during bathroom breaks.
- Students may not communicate about the exam with other students, others in their local environment, or anyone other than course teaching staff while an exam is in progress.
- Students may not refer to any books, papers, or online resources during an examination except with the express prior permission of the instructor or teaching staff.
- Personal belongings must be put away and all mobile phones and other electronic devices should be turned off unless they are specifically approved for use by the course staff during the exam.
- If there are multiple exam dates or times, students may not communicate with *any other students, even those in their own exam seating,* about the exam until all exam-taking dates are completed.
- In case of an emergency during an exam, or a Zoom, power, or internet outage, students should communicate as promptly as possible with the course staff. In such cases, students should not discuss the contents of the exam or refer to any materials related to the exam until they have made arrangements with the course staff for how to proceed with the assignment.

**Late Arrival to Examination**

In the event that a student is late for the exam, the instructor may choose not to administer the exam and report the student as absent. Students who are late for a course-administered final exam should report directly to their instructor. In the event that a student is late to an exam due to a Zoom or internet outage, students should communicate as promptly as possible with the course staff and should not discuss the exam with any students who have begun the test. No one will be admitted to an examination more than 30 minutes after the start of the exam. Ordinarily, latecomers will not be allowed to make up lost time.

**Absences for Course-Administered Exams**

In accordance with Massachusetts law, students who are unable to participate in an examination as a consequence of their religious beliefs shall be provided with an opportunity to make up the examination, without penalty, provided that the make-up examination does not create an unreasonable burden on the College. It is the responsibility of the students concerned to provide instructors with the dates on which they will be absent because of a conflict with the religious holidays they will be observing.

If an instructor is satisfied that an absence for a reason other than religious observation is

necessary, the instructor may elect to give a make-up examination before the last day of the Examination Period. The responsibility for such decisions during the term and until the last day of Examination Period rests with the instructor only, and not with the Dean's Office, the Registrar's Office, or the Administrative Board.

Any make-up examination that cannot be administered before the last day of the Examination Period, however, requires the approval of the Administrative Board https://handbook.fas.harvard.edu/book/administrative-board-harvard-college. Petitions to the Administrative Board to allow students to complete make-up examinations beyond the end of the Examination Period will follow the Board's procedures and deadlines for "Extensions of Time for Written Work." Students who anticipate needing an extension of time beyond the end of Examination Period to complete make-ups of course-administered examinations should contact their Resident Dean to initiate the petition to the Administrative Board. Please note that, following the EPC Emergency Policies for Fall 2020, "in response to the coronavirus pandemic, students may petition the Administrative Board for an extension of time up until January 15 to complete required work in a course, including laboratories, problem sets, or papers." https://handbook.fas.harvard.edu/book/covid-19-emergency-policies

Instructors may also elect to offer an alternative assignment instead of a make-up exam, with the understanding that any course work turned in after the end of Examination Period would require approval of the Administrative Board as outlined above. If neither a make-up exam nor an alternative assignment can be offered, the final evaluation of the student's work in the course may be determined from the remainder of the course work.

**Medical Circumstances**

Students who provide notice of their inability to take an exam for medical reasons may not be penalized for their absence from course-administered examinations provided that they have communicated with their instructor in a timely manner. In cases when a student is ill before an exam has begun, students are expected to write to their instructor and Resident Dean to request a make-up exam for medical reasons within the 24 hours before the exam is scheduled to begin, absent extenuating circumstances (for example, a student is hospitalized and unable to communicate).

The instructor may elect to give a makeup examination or elect to offer an alternative assignment instead of a make-up exam, with the understanding that any course work turned in after the end of Examination Period would require approval of the Administrative Board as outlined above.

If neither a make-up exam nor an alternative assignment can be offered, the exam may be omitted, and the final grade may be calculated based on the remainder of the course work. Regardless of the manner in which a student's exam absence is resolved, whether through a make-up exam, alternate assignment, or waiver of the exam, the student cannot be penalized for the exam absence due to illness.

Medical documentation will ordinarily not be required as part of petitions to the Administrative Board for extensions of time until January 15, 2021. Students who anticipate needing to petition the Administrative Board for a further extension of time beyond January 15, 2021, however, should discuss with their Resident Dean what documentation may be necessary.

**Illnesses During the Examination**

Any student who becomes ill during an exam should report the illness immediately to a member of the course staff. Students will be instructed to seek care as appropriate. Students may not discuss the contents of the exam or refer to any materials related to the exam until they have made arrangements with the course staff for how to proceed with the exam. If possible, the instructor should allow the student to resume the exam when the illness has subsided. The instructor may also elect to give a makeup examination, offer an alternative assignment, or evaluate the student based on the remainder of the coursework, as outlined above under Medical Circumstances.

October 14, 2020: Extending the Deadline to Change Grading Status Fall 2020

For Fall 2020, the deadline to change the grading status of a course will be extended to Monday,

November 16, or the eleventh Monday of the semester. Students will continue to be required to complete 84 satisfactory letter-graded credits for their degree, and first-year students and sophomores will continue to be expected to take three letter-graded courses per semester.

December 8, 2020 Extensions of time policy Spring 2021

For the Spring 2021 semester, in response to the coronavirus pandemic, students may petition the Administrative Board for an extension of time up until July 1 to complete required work in a course, including laboratories, problem sets, or papers. In cases where the Administrative Board has in advance granted an extension of time, a temporary notation of EXT will be made. EXT is a temporary notation; a final grade must be given upon the expiration of the extension.

December 8, 2020: Extending the Deadline to Change Grading Status Spring 2021

For Spring 2021, the deadline to change the grading status of a course will be extended to Monday, April 5, or the eleventh Monday of the semester. Students will continue to be required to complete 84 satisfactory letter-graded credits for their degree, and first-year students and sophomores will continue to be expected to take three letter-graded courses per semester.

December 8, 2020: Credit for Summer 2021 Harvard Online Courses

For Summer 2021, Harvard College students will be granted the opportunity to receive credit for those courses delivered in a temporary online format that would normally be offered on campus (face-to-face) and eligible for College credit.

January 26, 2021: Credit for Summer 2021 Non-Harvard Courses

During the Summer of 2021 students will be granted the opportunity to receive credit for courses taken at institutions or in programs approved by the OIE, including those programs being offered remotely in response to the pandemic. Students will be eligible to receive:

- Credit for elective coursework and/or coursework done toward fulfillment of concentration or secondary field study completed as part of an approved international study abroad program
- Credit for language coursework in a language other than English done as part of an approved international study abroad program, or through an approved domestic study program (pending language department approval)

Following current study abroad policy, students may earn no more than 8 credits for summer study, including coursework completed through Harvard Summer School, as outlined by the Harvard Summer School policy. Please note that students may only apply Harvard College funding, including the 2021 Harvard Summer School tuition waiver, to one summer experience.

# Addendum

# Updates

Jul. 14, 2020. Corrected the Student Services Fee on the Students' Financial Obligations in the Event... page to $1554.50.

Jul. 21, 2020. Updated the Fall term check-in deadline to August 17.

Sept. 16, 2020. SCRB 99a/99b shifted to a letter-graded course and is no longer offered SAT/UNS.

Oct. 29, 2020. Academic Calendar updated per Dean Gay's October 29 email reallocating spring break to five individual wellness days throughout the semester instead of a single week's vacation.