ACADEMIC PROSPECTUS
2014-15

HAVERFORD
COLLEGE

ACADEMIC CALENDAR

SEMESTER I

Aug 27	First year and transfer students arrive
Aug 31-Sep 1	Returning students arrive
Sep 1	Labor Day – Classes not in session
Sep 2	Classes begin at Haverford and Bryn Mawr
Sep 5	Last day to uncover P/F - CR/NO CR from previous semester
Sep 10	Final academic verification at Haverford and Bryn Mawr
Sep 10	Last day to register - Class of 2018
Sep 19	Last day to request Pass/Fail, First Quarter courses only
Sep 19	Last day to drop a credit at Haverford and Bryn Mawr
Oct 10	Last day to request Pass/Fail, Full Semester courses only
Oct 10	Fall break begins at 4:00 p.m.
Oct 20	Classes resume at 8:30 a.m.
Oct 24	End of ½ semester courses
Oct 24/26	Family and Friends Weekend
Oct 27-31	Faculty reports of concern to CSSP due
Oct 31	Academic flexibility proposals due
Nov 13-14	Registration for spring semester
Nov 14	Last day to request Pass/Fail, Second Quarter courses only
Nov 26	Thanksgiving break begins at 4:00 p.m.
Dec 1	Classes resume at 8:30 a.m.
Dec 12	Classes end at Haverford; optional Reading Day
Dec 12	All papers (except those in lieu of exams) due
Dec 13-14	Reading Period
Dec 15-19	Final Examinations for all students through Friday at noon
Dec 19	Semester I ends at noon
Jan 5	Final grades due in Registrar's Office by noon

SEMESTER II

Jan 20	Classes begin at Haverford and Bryn Mawr
Jan 23	Last day to uncover P/F - CR/NO CR from previous semester
Jan 28	Final academic verification at Haverford and Bryn Mawr
Feb 6	Last day to request Pass/Fail, First Quarter courses only
Feb 6	Last day to drop a credit at Haverford and Bryn Mawr
Feb 27	Last day to request Pass/Fail, Full Semester courses only
Mar 6	End of ½ Semester courses
Mar 6	Spring break begins at 4:00 p.m.
Mar 16	Classes resume at 8:30 a.m.
Mar 16-20	Faculty reports of concern to CSSP due
Mar 20	Academic flexibility proposals due
Apr 3	Last day to request Pass/Fail, Second Quarter courses only
Apr 16-17	Registration for Semester I, 2015
Apr 17	Returning students' Financial Aid Applications due
Apr 17	Sophomore Major Work Plans due in Registrar's Office
May 1	Classes end at Haverford and Bryn Mawr
May 1	All papers (except those in lieu of exams) and lab notebooks due
May 2-5	Reading Period - self-scheduled exams may be taken Mon/Tues only
May 4-6	Senior Comprehensive Examinations
May 6-9	Final Examinations for Seniors through Saturday at 5:00 p.m.
May 11	Senior Grades due in the Registrar's Office by 5:00 p.m.
May 6-15	Final Examinations for Underclassmen through Friday at Noon
May 15	Semester II ends at Noon
May 16	Commencement at Bryn Mawr College
May 17	Commencement at Haverford College – 10:00 a.m.
May 22	Final grades due in the Registrar's Office by Noon

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THE COLLEGE

STATEMENT OF PURPOSE

Haverford College is committed to providing a liberal arts education in the broadest sense. This education, based on a rich academic curriculum at its core, is distinguished by a commitment to excellence and a concern for individual growth. Haverford has chosen to remain small and to foster close student/faculty relationships to achieve these objectives.

The College's rigorous academic program is flexible in form and content to meet the needs of individual students, and rests on the assumption that the able students who come here will use their capacities fully. Haverford's faculty is noted for its strength in both scholarship and teaching, and its members expect to transmit to students their enthusiasm and high standards. The faculty members are teaching at an undergraduate college of arts and sciences by choice and they expect to learn, as well as to teach, in this close relationship with undergraduates.

The full resources of the College, in and out of the classroom, are designed to promote the personal and intellectual growth of students. Through an ambitious program of visiting lecturers and cultural activities, a conscious effort to recruit faculty and students representing diverse backgrounds and perspectives, student self-governance and service programs, an athletic program focused on participation and the scholar-athlete, and through day-to-day living in a residential community, the College seeks to broaden and enrich each person's development. Students are asked to give of themselves, even as they draw new strength from others. We seek to foster the pursuit of excellence and a sense of individual and collective responsibility throughout the entire environment.

Haverford strives to be a college in which integrity, honesty, and concern for others are dominant forces. The College does not have as many formal rules or as much formal supervision as most other colleges; rather it offers an opportunity for students to govern their affairs and conduct themselves with respect and concern for others. Each student is expected to adhere to the Honor Code as it is adopted each year by the Students' Association.

Haverford College, while a non-sectarian institution, has Quaker origins which inform many aspects of the life of the College. They help to make Haverford the special college that it is, where the excellence of its academic program is deepened by its spiritual, moral, and ethical dimensions. These show most clearly in the close relationship among members of the campus community, in the emphasis on integrity, in the interaction of the individual and the community, and in the College's concern for the uses to which its students put their expanding knowledge.

HISTORY

Haverford was founded in 1833 as Haverford School by a group of New York and Philadelphia Quakers who sought to create an institution of learning grounded in Quaker values. Though we are nonsectarian today, our Quaker roots influence many of our values and processes.

In the beginning, a seven-member faculty educated 21 Quaker boys in Greek, Latin, natural and moral philosophy, mathematics, and literature in that first year. Students lived, ate, and took classes in Founders Hall, a building that currently houses meeting rooms, faculty offices, and College administration, including the Office of the President.

By the turn of the 20th century, Haverford had become a national institution, competing for students and faculty with leading institutions in the nation. Although Haverford began admitting women as first-year undergraduate students only in 1980, Haverford's commitment to educating women began as early as 1917 and has been greatly strengthened by cooperation with Bryn Mawr College, which was also founded by Orthodox Friends. Today, women comprise half of Haverford's student body, and the Bi-College (Bi-Co) relationship continues to enrich the academic, cultural, and extracurricular offerings of both institutions.

Haverford has evolved into a college with both a wide-ranging academic program (students study topics from Biophysics to Peace and Conflict Studies, though we still offer Latin) and a diverse scholarly community. Today, with over 100 faculty members and a coeducational student body, Haverford enrolls nearly 1200 students each year representing a wide variety of ethnic and religious backgrounds and a wide geographic area.

FACILITIES

LIBRARIES

The four Haverford libraries provide resources and services that support the teaching, learning and research needs of the Haverford community.

Librarians work with students—both on and off campus—at all stages of their projects, from first-year seminar assignments to senior theses. Whether in group presentations, individual research, advisory tutorials, or at the Research Help Desk, librarians help students refine their topics and research questions, locate and obtain relevant research materials, and analyze and use the material effectively and ethically.

Librarians work with faculty to design printed materials, online guides (available at libguides.haverford.edu), and workshops that focus on general research capacities or are tailored to the work of specific courses or disciplines. The instruction program is a vital complement to coursework because it introduces library resources, research strategies, and evaluative skills that enable students not only to be more confident researchers, but also to see research as an intensive iterative process in which research questions and the search for sources mutually inform each other.

In collaboration with Research & Instruction Librarians and colleagues from across the college, the Digital Scholarship Team in the library works with faculty, students and staff to create and explore scholarship in new forms. Whether research is curricular or extra-curricular, or whether it is long or short term work, students and faculty rely on the library colleagues for resources, tools and assistance to help conceive, plan, and generate knowledge at the intersection of digital technology and traditional scholarly questions.

Magill Library, a popular space at the heart of the campus, houses the majority of the collections for the social sciences and humanities, while branch libraries in the Koshland Integrated Natural Sciences Center, the Observatory and Union Building serve the needs of students and faculty in the sciences, astronomy and music respectively. The Libraries are also home to the Quaker and Special Collections, an internationally significant repository for both printed and manuscript material about the Society of Friends. Special Collections also include important manuscript and rare book, and photograph collections.

Access to all collections is available through Tripod, the integrated library system shared with Bryn Mawr and Swarthmore Colleges. This on-line tool provides members of the tri-college community with access to a combined collection of 2.6 million volumes, including a wide variety of books, journals, photographs, manuscripts, music scores, and audio-visual resources. The system (available at tripod.haverford.edu) also includes access to thousands of full-text electronic books and journals, and it permits users to request items from the other consortium libraries. Regular delivery of circulating materials makes Tripod resources from Swarthmore or Bryn Mawr libraries available to the Haverford community within 24 hours. Our inter-library loan program provides access to research material beyond the tri-college collections.

For more information about the collections and services of the libraries, please consult the Library's website (library.haverford.edu) or pay us a visit. We look forward to working with you in meeting your scholarly needs.

SCIENCE FACILITIES

The Departments of Astronomy, Biology, Chemistry, Computer Science, Mathematics, Physics, and Psychology are housed in the state-of-the-art Marian E. Koshland Integrated Natural Sciences Center (KINSC). The KINSC is also home to interdisciplinary Areas of Concentration in Biochemistry and Biophysics and to the minor in Neuroscience. These departments and programs are served by a common computational suite; a modern and spacious science library with on-line access to the collections of Haverford, Bryn Mawr, and Swarthmore; a 120-seat auditorium; additional smaller modern classrooms; and numerous informal interaction spaces. Increased opportunities for learning and

collaboration at the interfaces between science disciplines are a special feature of the facility.

ASTRONOMY

Facilities for the Astronomy Department include the William J. Strawbridge Observatory given in 1933 and built around an earlier structure. The observatory has its own library, classroom and workspace for departmental students. There is an astrophysics research lab in Stokes Hall that contains 8 computers and an informal discussion space. Telescope resources include a computer-controlled 16-inch Schmidt-Cassegrain telescope with three CCD cameras; a CCD spectrometer; a 12-inch Schmidt-Cassegrain telescope; three portable 8-inch telescopes with outside piers; and a 4-inch solar telescope. In addition to these on-campus facilities, each major is offered the opportunity travel to another observatory, such as Kitt Peak National Observatory where Haverford has a share of a 0.9 m research class telescope. The astronomy library in Strawbridge contains 3,000 bound volumes; we have electronic subscriptions to all of the primary astronomy journals. Haverford is part of an eight-college consortium that provides research assistantships for a summer students exchange program, grants for student travel to outside observatories, and a yearly symposium at which students present their research.

BIOLOGY

The Biology Department is housed in Sharpless Hall and East Wing of the KINSC. The Department includes three new and recently renovated teaching laboratories, nine fully equipped faculty research laboratories, a media preparation facility, tissue culture rooms, instrument rooms, dark rooms, constant temperature rooms, and a microscopy suite. The Department has the equipment to support a sophisticated cell and molecular biology curriculum and the research programs of the faculty including: -70 degree freezers, liquid nitrogen storage, incubators and shakers for microbial and tissue culture work, tissue culture hoods, multiple digital imaging systems, ultracentrifuges for preparative and analytical uses, refrigerated centrifuges, spectroscopic tools such as UV-vis spectrophotometers and a circular dichroism spectropolarimeter, two BD Biosciences fluorescence activated cell sorters (a FACSCalibur and a FACSAria), JEOL transmission and scanning electron microscopes, a Nikon confocal microscope, stereo and fluorescence microscopes, FPLC and HPLC instruments, ELISA readers, and multiple PCR machines including an RT-PCR instrument.

CHEMISTRY

Facilities in the Chemistry Department, located in the East Wing of the KINSC, enable students to use modern and state-of-the-art research grade instrumentation at all levels of study. There are four laboratories for course work, three instrument rooms, specialized equipment rooms, and a walk-in cold room. Eight additional laboratories provide space in which students conduct research jointly with the faculty. There is a laser laboratory equipped with nitrogen-dye, neodymium-YAG, Argon ion, and diode lasers and detection systems for time-resolved fluorescence and Raman spectroscopic studies. Computational facilities include Windows and UNIX-based workstations which allow students to explore molecular structure and properties using Gaussian, GAMESS and Insight/Discover computational packages. Major equipment items available for use by students in structured courses and in research tutorial work include a Bruker Avance 200MHz Nuclear Magnetic Resonance spectrometer, an Agilent 500MHz Nuclear Magnetic Resonance spectrometer with an Auto Xdual-band probe, an Agilent 1100 SL Liquid Chromatograph/Mass spectrometer, a Perkin Elmer Clarus-500 Gas Chromatograph/Mass Spectrometer, a Shimadzu 2014 Gas Chromatograph with a flame ionization detector, a Nicolet Magna 550 and two Perkin-Elmer Spectrum 1000 Fourier transform infrared spectrometers, a Bruker Vertex 70 FT-IR with photovoltaic MCT detector and temperature dependent sample capability, a Nicolet 6700 FT-IR, equipped with a NXR FT-Raman Module and optional Pike Technologies MIRacle attenuated total reflectance accessory, a Hitashi F-7000 Fluorescence Spectrophotometer, an Agilent Model 8453 UV/VIS Spectrophotometer, a Jasco V-570 UV-Vis spectrophotometer, a Perkin Elmer Lambda 2 UV-Vis spectrophotometer, and a Shimadzu 160U UV-visible spectrophotometer, a Hi-Tech SF51 and an Olis RSM stopped flow spectrometers, an MBraun Unilab glove box, a Perkin-Elmer 341 polarimeter, a Princeton Applied Research 273 electrochemical potentiostat, Advanced Measurement Systems Voltammetry System, three Rainin high-

performance liquid chromatographs equipped with a Dynamax Model UV-1 detector (two systems) or a Dynamax Model-UV-DII detector (one system), and one Hewlett-Packard HPLC with a DAD detector, a GE ÄKTApurifier FPLC system with a Frac-920 fraction collector, a Bio-Rad BioLogic Workstation, two VirTis benchtop lyophilizers, a GBC-Difftech MMA powder X-ray diffractometer, a Buck Scientific Accusys 211 Atomic Absorption Spectrophotometer, an Applied Biosystems 433A Peptide Synthesizer, equipped with a Perkin Elmer Series 200 UV/Vis detector, a Rainin PS3 automated peptide synthesizer, and a ProteinSolutions DynaPro dynamic light scattering instrument, a CEM Microwave Accelerated Reaction System, Biotage Initiator+ microwave synthesizer, a TA Instruments TGA Q-500 Thermogravimetric Analyzer, a TA Instruments low volume nano-Isothermal Titration Calorimeter, an Agilent GC/MS System, a Fischer Isotemp Freezer, and a Fischer Muffle Furnace. In addition to these items, more standard laboratory equipment such as colorimeters, Büchi Rotavapor instruments with Thermo Neslab RTE 740 circulation baths, vacuum lines, Carbolite PF30 ovens and various convection and vacuum ovens, Carbolite CWF 100 box furnaces, pH meters, Mettler-Toledo and Sartorius micro, analytical and regular balances, gas generators, and high-precision electrical and optical equipment are available and used in instructional work.

The computer science, mathematics, and physics programs, housed in the Hilles and Harris wings of the KINSC, use computers for symbolic manipulation, scientific/numerical computation, and the acquisition and analysis of laboratory data.

COMPUTER SCIENCE

The Computer Science Department maintains two laboratories. The Computer Science Teaching Lab (KINSC H110) is the primary workspace for students completing course assignments. Computer Science classes are held in this lab, as well as lectures from visiting researchers. There are ten Linux workstations, plus a Linux lab server. The instructor can make presentations using the lab server or a laptop in conjunction with an AV system. Students in the Teaching Lab can access their work on the local CS server or on the campus storage server. Secure remote access is available via standard Internet tools (e.g., ssh, sftp, scp, cvs). A laser printer is available in this room for student use.

Students can enter the Teaching Lab at any time of the day using the campus One Card (student ID). Student Lab Assistants staff this room in the evenings (Sundays through Thursdays) to provide support for programming projects, along with help to resolve technical questions. Applications available include programming languages (e.g., C, C++, Python, Scheme and Java), as well as tools for logic circuit design, compiler design/implementation, concurrency, and graphics. Mathematica and LaTeX are used for symbolic/numeric computation and typesetting. These workstations also use OpenMP and MPI for parallel computation in conjunction with course work as well as research.

The Computer Science Lounge (KINSC H111) is adjacent to the Teaching Lab. This space is primarily for informal meetings and discussions. Current periodicals in computer science are available in this lounge to complement the resources in the Science Library upstairs from the Lab.

The Computer Science Research Lab (KINSC L310) is as a workspace for students involved in upper level courses, in ongoing research projects, and in work to supplement a senior thesis. The Research Lab is also available for seminar classes, meetings and smaller presentations. Currently, there are four workstations (Linux, Macintosh and Windows available) in the Research Lab designed to support student learning as well as faculty research.

MATHEMATICS

In addition to the shared computing facilities in the Harris wing of the KINSC, the Mathematics Department maintains a pair of adjacent rooms in the basement of Hilles; one functions as a classroom for courses that incorporate computer use into collaborative learning, and the other serves groups of students who need to use Mathematica or Matlab alongside other specialized mathematics and typesetting software. Five evenings a week these rooms, H011 and H012, are staffed by mathematics majors and faculty, who transform it into the Math Question Center, open to students in both beginning and

advanced courses who need encouragement and assistance while working on projects and homework. Students also work alone and together in the comfortable math lounge on the second floor of Hilles, immediately adjacent to math faculty offices and workspaces. There is also a small computer room adjacent to the math lounge. From all of these spaces students have wireless access to the campus network. The four laptops in H011 and the 12-16 desktop machines in H012 are available for student use when these rooms are not reserved for classes or discussion sessions.

PHYSICS

Facilities for the Physics Department in the KINSC include three well-equipped laboratories for instruction, all featuring computerized data acquisition systems. The facilities for intermediate and advanced lab courses include a thin metal film deposition system, a chemical vapor deposition system (mostly used for making carbon nanotubes), microfabrication facilities, a cosmic ray experiment, atomic spectroscopy experiments, an instructional scanning tunneling microscope, a laser tweezer experiment, and equipment for experiments in micro-fluidics, among many others.

The department also has twelve lab rooms for research involving students, in four areas of research. The laboratory for nano- and molecular electronics houses two atomic force microscopes, two high-resolution optical microscopes, photoelectronic characterization equipment (including Ar ion and HeCd lasers), a UV-vis spectrometer, and an ultrahigh vacuum chamber. The biophysics laboratory includes a Langmuir trough for fabricating synthetic ion channel biomembranes and a video fluorescence microscopy system for studies of model membrane systems. The nonlinear dynamics and fluids laboratory includes state-of-the-art systems for digital image collection and instrumentation for remote measurement of fluid flow and particle velocities. Computational science is currently undergoing rapid growth in physics with the acquisition of a 24 processor high performance Linux cluster (Babbage) in physics, with potential to expand to 52 processors and the recent purchase of an additional ten research machines for a shared computational research room. Faculty from physics and astronomy, biology, chemistry, mathematics and computer science are working together to maximize the curricular benefits of these activities, including the enrichment of computational concentrations within existing departments, and opportunities for undergraduates to participate in computational research in all departments within the KINSC.

The department uses a variety of technical software in its courses and research, including Mathematica, MatLab, Python and Origin. This software is available on computer clusters throughout the science center (including the computers in the physics lounge), and also can be installed on student-owned computers in dorm rooms via a key-server system.

PSYCHOLOGY

The Psychology Department occupies the upper two floors of Sharpless Hall in the KINSC. Computers are used throughout psychology for experimental presentation, data collection, statistical analysis, and the simulation of mental and biological processes. The department utilizes the common KINSC computational suite, which includes 20 workstations equipped with E-Prime and SPSS software. In addition, five laboratory suites are devoted to faculty and student research. The cognition laboratory includes a computer-controlled Midi keyboard and music synthesizer system capable of generating a wide variety of stimuli for studies in perception and memory. Other equipment includes audio-sound systems, VCRs, and a computer-interfaced response system for data collection. The biological psychology laboratory includes a teaching facility, an animal colony, equipment for computer-controlled experiments in animal learning and behavior, and equipment for the recording of physiological responses in humans. The cognitive neuroscience lab contains a 40-channel Neuroscan EEG system for recording electrical activity in the human brain during cognitive performance tasks. The social psychology laboratory includes computerized questionnaire design and response stations, as well as equipment to record dyadic interactions and experience-based reactions. The personality laboratory houses computers for questionnaire and interview design and analysis as well as space for the audio and video recording of life-story interviews.

INSTRUCTIONAL AND INFORMATION TECHNOLOGY SERVICES (IITS)

INSTRUCTIONAL TECHNOLOGY

The Instructional Technology Services (ITS) team in IITS offers many services that support faculty and students with teaching and learning.

We assist faculty with creating digital teaching resources to increase students' engagement, and help students deepen their learning in various ways.

Our computer lab, the Instructional Technology Center (ITC), located in Stokes 205, is a space for students to work on media projects with assistance from professional staff. The ITC also houses multimedia equipment that students can check out, including video cameras, DSLR cameras, and voice recorders.

Our lecture capture system (Panopto) is available to all students and faculty. The faculty primarily uses Panopto to record lectures, which are uploaded to Moodle for students to review. Students can also use Panopto to improve presentation skills.

In addition to various workshops the ITS offers, students have unlimited access to many training videos on software, technology, creative skills, and business skills offered through lynda.com. We work with students to find and provide appropriate technologies to succeed at Haverford and beyond.

OTHER IITS SERVICES

Computers are an integral part of a Haverford education. Every member of the Haverford community has access to web-based email, collaboration tools and private network storage space, and much of our campus— including every dorm space—has wireless network access.

Many courses mix online discussion groups, web resources and other electronic resources with traditional lectures, in-class discussions and printed materials for a full and varied learning environment.

The IITS ProDesk, located in Stokes Hall, provides computing support for the College community. There is no requirement for students to buy computing equipment, and yet nearly 99 percent of our students have their own computers.

Those who choose to use computing equipment in one of the College's public labs have access to a generous array of computing resources available free of charge. Located in Roberts Hall, the Haverford College Apartments (HCA) and Magill Library, these public labs contain a mix of Macs and PCs configured with high-speed Internet access and supported software.

Both the Roberts and HCA Labs are available to students 24/7 with access via their Haverford One Card.

Additional computer equipment is available in the Instructional Technology Center (also located in Stokes Hall) and in the KINSC's departmental labs in Biology, Chemistry, Math, Computer Science and Physics and Astronomy. These departmental computers have special hardware or software for students taking classes in those disciplines. Some of these labs are also available for general use.

An Ethernet network provides 10- or 100-megabit service directly to all offices, classrooms, public computing labs and dormitories. This provides students, faculty and staff with access to local network services, such as file servers, and Internet resources, such as the web and email. External access to the Internet is provided via a full duplex 100 Mbps link. Students living on-campus can access this high-speed network free of charge.

Faculty and students living off-campus can connect to our network from their homes and access the same networked resources using VPN over their broadband network.

IITS supports a standard suite of software for web browsing, word processing, web development and other needs. In addition, campus provided virus protection software is required for all users on our network. All supported software is available for use in the public labs and most of this software is free or site licensed by Haverford and may be used on computers connected to the campus network

in offices and dormitories. Our website (iits.haverford.edu) lists these specific supported software packages.

In addition to the standard supported software mentioned above, Haverford often makes special software available for use in particular classes. For example, music students may be given assignments to use ear-training software, whereas chemistry students may use software for molecular modeling. Such software is made available in public labs, and may also be available on our network or at academic pricing.

Faculty use one of several computer classrooms for hands-on computer sessions, or use projection equipment in a standard classroom to provide computer-aided instruction and demonstrations. Additionally, faculty may make certain computer resources available outside of the classroom, by posting resources on their Moodle course, on the web or on our campus network. Faculty also make specific software or information available in the public labs, departmental labs or the library, or they work with students in collaborative online projects.

Many of the services provided by IITS are available through the work of our student assistants. Students help at the IITS ProDesk and assist with hardware repairs, install software, assist with system administration and work with faculty on various projects. All students are welcome to apply to be student assistants. In addition to an hourly salary, these students obtain extensive computer training.

In addition to the above, IITS provides a variety of other services that may be of interest. For more information, please refer to our website (iits.haverford.edu).

FINE ARTS

- The Bettye Bohanon Marshall Fine Arts Center opened in 1987 and contains studios for painting and drawing, photography darkrooms (for both black-and-white and color), storage areas, student exhibition space and faculty offices.
- Located adjacent to the new center is the Fine Arts Foundry, which is used for the sculpture program. The Fine Arts Foundry also contains a wood shop and studio space. In spring 2009, the printmaking studio was moved from Arnecliffe at Bryn Mawr College to the Locker Building (adjacent to Ryan Gym). Its facilities include digital, etching, lithography, silkscreen, relief and a darkroom process for all photographic plates.
- The Cantor Fitzgerald Gallery, named for the Cantor Fitzgerald Company and dedicated in honor of Howard W. Lutnick '83, is located off the Atrium of the Whitehead Campus Center. It provides a simple yet elegant environment for historical and contemporary art exhibitions. The exhibition program serves both the College community and the Philadelphia area. Students are encouraged to participate in all aspects of the program, from installing works of art to writing essays for exhibition catalogs published by the gallery. Exhibited works come from the College's collections and from loaned collections of individuals, galleries, and museums. In addition, each spring the gallery shows works by graduating Haverford and Bryn Mawr fine arts majors. The gallery is open throughout the academic year and is free to the public.
- The College's art collections, housed in Special Collections of Magill Library, are inventoried and available for study.

MUSIC

MUSIC BUILDING

The Department's activities are carried out at two locations on Haverford's campus. Our principal space, Union Music Building, houses offices for faculty and staff, two main classrooms, and the intimate MacCrate Recital Hall, the Music Library and listening room, a choral and orchestral library, and areas for storage of instruments and equipment. The classrooms are outfitted with high-end playback equipment, overhead and video capability, and are digitally equipped for laptop projection and internet access. The Department also manages and utilizes Marshall Auditorium of Roberts Hall, which stands adjacent. Marshall is a location for rehearsals and concerts, especially those involving larger ensembles and audiences. There are additional practice rooms and teaching spaces in the basement of Marshall. The stage is outfitted with both flexible and fixed lighting arrays, adaptable to a variety of performance activities large and small.

PIANOS/KEYBOARD INSTRUMENTS

Haverford's Music Department possesses 25

pianos. 11 of these are grands from the golden age of piano manufacturing with names like Steinway, Bechstein and Mason and Hamlin, all of which will have been restored to original condition by the end of 2013. Chief among them is the 9 and ½ foot, 97 key Bösendorfer Imperial concert grand Model 290, from Vienna. Three of our grands—the Bösendorfer, and two Steinways used for piano lessons—are equipped with the SALA adjustable lever action developed by David Stanwood. This unique feature allows both the student and the concert artist to set the touch and feel of the keyboard to his or her personal preference. A complement of 9 studio uprights and 4 digital pianos completes the list. Other keyboard instruments in the Department's collection include a Schlicker two-manual Baroque style organ, a Shortridge-Jacquet two manual harpsichord, and a five-octave Zuckerman clavichord. Additional upright and digital pianos can be found elsewhere on campus in the GIAC, Dining Center, and Campus Center.

ORCHESTRAL INSTRUMENTS

The orchestral/chamber music program offers an instrument loan collection including 8 string instruments plus bows and 10 woodwind/brass instruments, and boasts an inventory of nearly 100 pitched and non-pitched percussion instruments housed in their own dedicated backstage room, among them a classic Mustel celesta.

UNION MUSIC LIBRARY

The Department is fortunate to be in a position among only 28% of peer institutions that have an embedded music library. The Union Music Library offers a suite of services that includes instruction on how to conduct music research, support for scholarly and practicum projects, technical assistance with digital music applications such as notation and sound editing software, analog-to-digital format conversion, and much more.

There are 20,000 items (including scores, chamber music, CDs, DVDs, audio and video tapes and LPs) in the collection, plus an additional 11,700 items (complete editions and books on music) held centrally in Magill Library. Essential and online resources, such as Oxford Music Online, JSTOR, Project MUSE, IIMP, RILM, Naxos Music Library, Naxos Video Library, DRAM, Smithsonian Global Sound, and Contemporary World Music, to name a few, are available.

Beyond these 30,000+ items, the Music Department's and students' access to music materials is supplemented by Tri-College Consortium (TRIPOD) participants Bryn Mawr and Swarthmore Colleges, who possess over 12,500 and 32,000 items respectively, resulting in extremely robust and impressive holdings.

ATHLETICS

OUTDOOR FACILITIES INCLUDE:

- Walton Field/Johnson Track: a grass surface for soccer and track & field events with an eight-lane 400-meter all purpose track surface
- Swan Field: a FieldTurf surface for competition and practice in field hockey, men's lacrosse and women's lacrosse and practice for men's soccer, women's soccer, baseball and softball
- Class of 1888 Field: for soccer and lacrosse
- Merion Fields: intramurals and off-season practices; Featherbed Fields: two practice venues for multiple athletic activities
- Class of 1995 Field: softball
- Cope Field - cricket; Kannerstein Field and Randall Diamond: baseball
- Bramall and Marshall Courts: 12 all-weather tennis courts: six named for Norman Bramall and six for Bettye Marshall.

INDOOR FACILITIES INCLUDE:

The Douglas B. Gardner '83 Integrated Athletic Center (GIAC), a 100,000-square-foot gymnasium built to U.S. Green Building Council/Leadership in Energy and Environmental Design "Gold" certification, includes:

- 1,200-seat Calvin Gooding '84 Arena with three full wood-floor basketball courts converting to varsity basketball, volleyball, and badminton game courts
- Swan Multipurpose Room, primarily for aerobics, dance, and martial arts
- Andy Kates fencing salle; five international squash courts; a conference room
- 7,200-square-foot Arn '76 and Nancy Tellem Fitness Center
- offices for all members of the athletic staff and a sports medicine suite
- Thomas Glasser '82 Hall of Achievement, which provides the opportunity to recognize major figures in Haverford's storied athletic history as well as extensive locker rooms for athletic teams, the student body and college staff

• The Safety and Security Department.

The Alumni Field House, donated by alumni and friends of the College in 1957, provides additional extensive facilities for athletics and recreation.

• Renovated in 1984 and 1997, the 58,000 square-foot facility was resurfaced in 2008 as a premier competition site to include four tennis courts and a 200-meter oval that comprise The Gary Lutnick Tennis & Track Center.
• The four-lane, 200-meter Haddleton Track includes several pits for jumping and pole vaulting, and is home for College and community meets.
• The Field House also contains two batting cages and a "playing field" for such sports as field hockey, lacrosse, soccer, baseball, softball and basketball.

RESIDENCE HALLS

Haverford offers a variety of housing options and styles.

- Barclay Hall, Gummere Hall, Leeds Hall, Lloyd Hall, and the North Dorms (Comfort, Jones and Lunt Halls) are traditional style residence halls with capacities ranging from 70 to 156 students. Most of the rooms are singles arranged in suites for two to six students.
- The new Tritton and Kim Halls, house 80 students each, in single rooms that open onto the hall. Haverford College Apartments (HCA) is a complex of two-story garden apartments with one and two bedrooms.
- First-year students are assigned housing in one of four residence halls: Barclay Hall, Gummere Hall, Tritton Hall, and in four designated first-year buildings at HCA. Upperclass students can live in any of the residence halls or apartments.

There are six houses, originally private dwellings, that now serve as housing for students:

- La Casa Hispanica houses students interested in the cultures and civilizations of the Spanish-speaking world. It contains a faculty apartment and housing for six students.
- Cadbury House houses students who want a substance-free and quiet environment. It contains a faculty apartment and has housing for 13 students.
- The Ira De A. Reid House, known also as the Black Cultural Center, houses six students interested in the cultures and politics of Africa and the African Diaspora who seek a culturally supportive environment.
- Yarnall House, the Henry S. Drinker House, and 710 College Avenue house 13, 18, and 11 students, respectively.

ACADEMIC CENTERS

CENTER FOR PEACE AND GLOBAL CITIZENSHIP (CPGC)

The Center for Peace and Global Citizenship (CPGC) advances Haverford's longstanding commitment to peace and social justice through research, education and action. The CPGC integrates innovative scholarship and responsible civic engagement around contemporary issues of global significance. With its commitment to knowledge as the foundation for effective action, the Center embodies Haverford's scholarly and ethical mission as a premier liberal arts college. The Center fulfills this mission by sponsoring a broad menu of programs. These include:

• domestic and international summer internships: Since 2000, the Center has funded more than 500 students to pursue projects in 50 different countries and the United States;

• on-campus events: The Center arranges visits by speakers, activists and academics to engage members of the Haverford community in meaningful dialogue on issues of peace and global citizenship;

• off-campus activities: The Center funds students to attend conferences and workshops, to conduct field research, and to collaborate on service-learning projects locally and abroad;

• Post-graduate fellowships: The Haverford House Fellowship Program connects the campus community with efforts to create a more socially just, healthy and vibrant Philadelphia region. Six fellows from each graduating class are selected for year-long fellowships working with nonprofit organizations and leading independent projects; post-baccalaureate fellowships in Mexico and India provide recent graduates the opportunity to explore social justice via a 6–10-month placement with a local NGO;

• faculty/curricular support: The Center supports faculty in their efforts to integrate experiential learning and research on issues of peace, social justice and global citizenship into their teaching.

For more information on the Center and its programs, visit *haverford.edu/CPGC*.

CPGC STAFF

Parker Snowe '79
Executive Director

Anne Preston
Academic Director

Donna Ruane
Sr. Administrative Assistant

Janice Lion
Domestic Program Coordinator

Chloe Tucker '07
International Program Coordinator

Stephanie Zukerman
Program Assistant

Marlen Lofaro
Cafe Coordinator

THE JOHN B. HURFORD '60 CENTER FOR THE ARTS AND HUMANITIES (HCAH)

The HCAH seeks to enhance the intellectual and cultural life at Haverford by fostering challenging exchange among faculty, students and diverse communities of writers, artists, performers, thinkers, activists and innovators. From its offices and seminar room in Stokes Hall, as well as its galleries across the campus, the Center sponsors programs that promote relationships between classic humanistic study and contemporary intellectual, artistic and ethical currents in the wider public world. Among its ongoing initiatives are annual Faculty and Student Seminars, reading groups, artist residencies, and other opportunities to enrich the humanities curriculum through innovative collaborations across departmental boundaries.

• Generous support from the Andrew W. Mellon Foundation made possible an endowment that supports two Mellon Post-Doctoral Fellows each year. This program brings to campus recent humanities Ph.D.s to work with faculty (in their first year, the Faculty Seminar), with students (with two courses each year) and with the wider community (in a public symposium mounted

during each fellow's second year), while allowing significant time and resources for their own research.
• The HCAH funds summer programs, including Student Research Assistantships supporting the scholarly work of Haverford faculty, independent Student Research Fellowships, and Student Internships—with host organizations such as The Philadelphia Museum of Art, the FringeArts, and the University of Pennsylvania School of Design (W.E.B. DuBois project).
• Through Center-sponsored symposia, presentations by renowned scholars and artists, Mellon Creative Residencies and its college exhibition program, the HCAH also enhances the intellectual and cultural life of the Haverford community and the public at large. A generous alumnus provides annual funding for student proposed arts projects.

For a complete description of the HCAH, its various programs and a calendar of upcoming events, visit *haverford.edu/hcah*.

HCAH COORDINATORS

Laura McGrane
Koshland Director and Associate Professor of English,

Tom W Bonner
Mellon Tri-College Creative Residencies Coordinator

Emily Carey Cronin
Programs and Administrative Manager

James Weissinger '06
Associate Director

Matthew Seamus Callinan
Associate Director, Cantor Fitzgerald Gallery and Campus Exhibitions

THE MARIAN E. KOSHLAND INTEGRATED NATURAL SCIENCES CENTER (KINSC)

The KINSC aspires to catalyze and facilitate programming that maintains Haverford's position at the leading edge of academic excellence in the sciences. To achieve this, the KINSC promotes scientific scholarship involving close collaboration between faculty and students and provides opportunities for these collaborations to expand beyond the borders of the Haverford campus through intentional engagement with the national and international scientific communities.

In accordance with this vision, the KINSC offers a diverse and flexible set of funding opportunities designed to support the ambitions of students and faculty in the sciences; when required, it also administers a portfolio of institutional grants that support the sciences at Haverford. The KINSC provides support for projects that enhance student and faculty scholarship, including travel grants for training, research and dissemination of results (i.e., at scientific meetings), and funding for both on- and off-campus student summer research. In addition, the KINSC has paid stipends and travel expenses for several students working on international collaborative research projects involving Haverford faculty members.

Special grants opportunities are available to faculty members to support the development of disciplinary and interdisciplinary initiatives than enhance student learning and scholarship. Increasingly, the KINSC works cooperatively with the Center for Peace and Global Citizenship and the John B. Hurford '60 Center for the Arts and Humanities to support projects that include, and extend beyond,the natural sciences, such as in the areas of public health or environmental studies.

For a complete description of the KINSC, its various programs and a calendar of upcoming events, visit *haverford.edu/KINSC*.

KINSC STAFF

Judith Owen
Director, Elizabeth Ufford Green Professor in the Natural Sciences and Professor of Biology

Marielle Eaton
Program Coordinator

NON-DISCRIMINATION POLICY

STUDENTS:

Haverford College does not discriminate in education or employment on the basis of sex, sexual orientation, gender identity, race, color, age, religion, disability, genetic information, national or ethnic origin, citizenship, veteran status, or any other characteristic protected by law. This policy is consistent with relevant governmental statutes and regulations, including those pursuant to Title IX of the Federal Education Amendments of 1972, Section 504 of the Federal Rehabilitation Act of 1973, and the Americans with Disabilities Act of 1990, as amended. Inquiries concerning Title IX may be addressed to Steve Watter, Title IX Coordinator (Chase 213, 610-896-4246, swatter@haverford.edu), and other policies of non-discrimination may be referred to the Affirmative Action Officers or to the Director of the Office for Civil Rights, U.S. Department of Education, Washington, DC. Affirmative action questions should be referred to Mary Louise Allen (610-896-1183) or to Chris Chandler, Director of Human Resources (610-896-1250).

Consistent with Title IX of the Education Amendment s of 1972, Haverford College does not discriminate on the basis of sex in any of its programs or activities. Sexual harassment, including sexual violence, is a kind of sex discrimination and is therefore prohibited by Title IX and Haverford College.

Haverford College, as an educational community, will promptly and equitably respond to all reports of sexual assault and harassment in order to eliminate the harassment, prevent its recurrence, and address its effects on any individual or the community.

Inquiries or complaints about the application of Title IX may be directed to the College's Title IX coordinator and/or to the U.S. Department of Education's Office for Civil Rights:

Philadelphia Office
Office for Civil Rights
U.S. Department of Education
The Wanamaker Building
100 Penn Square East, Suite 515
Philadelphia, PA 19107-3323
Telephone: 215-656-8541
FAX: 215-656-8605; TDD: 800-877-8339
Email: OCR.Philadelphia@ed.gov

FACULTY & STAFF:

Haverford College is committed to providing a work environment free from all forms of unlawful discrimination because of sex, race, color, religion, age, sexual orientation, disability, genetic information, national origin, citizenship, veteran status, or any other characteristic protected by law. This policy applies to all aspects of the employment relationship, such as recruitment, selection, training, promotion, salaries, benefits, discipline, terminations, and all other terms and conditions of employment.

In keeping with Haverford College's long-standing policy of non-discrimination, the Board of Managers of Haverford College has established a program of affirmative action. The goal of this program is to attract and retain staff of high quality and diverse backgrounds and to do so without discrimination on the basis of sex, race, color, religion, age, sexual orientation, disability, genetic information, national origin, citizenship, veteran status, or any other protected characteristic. In accordance with the Affirmative Action Policy, the College recruits persons in these protected categories as candidates for Haverford positions that become available. The results of the hiring process are reviewed regularly by the Affirmative Action Officer (AAO) to make certain these goals are being met.

ACADEMIC PROGRAM

CURRICULUM

Haverford is a liberal arts college, and its curriculum is designed to help its students develop the capacity to learn, to understand, to think critically, and to make sound and thoughtful judgments. The Requirements for the Degree encourage the exercise of these skills in each of the broad fields of human knowledge and a fuller development of them in a single field of concentration.

GUIDELINES FOR A LIBERAL ARTS EDUCATION

A Liberal Arts education requires a sense of the breadth of human inquiry and creativity. The human mind has explored the myriad facets of our physical and social environments; it has produced compelling works of art, literature, and philosophy. Every student is encouraged to engage a full range of disciplines—fine arts, the written word, empirical investigation, economy and society—in order to become a broadly educated person. As a step toward this goal, students must fulfill the following requirements:

FIRST-YEAR WRITING REQUIREMENT

As an essential tool for academic study, personal expression, and civic life, writing deserves concerted attention in a liberal arts education. A one-semester writing seminar, a general degree requirement of the College, must be taken by all first-year students. Writing seminars are courses that integrate writing instruction with intellectual inquiry into particular disciplinary or topical foci. They devote attention to strategies for performing critical analysis, constructing sound arguments, and crafting effective prose. WS-T (topically organized) and WS-D (academic discipline based) seminars are offered in both semesters. WS-I sections, taught in the fall semester, do not alone fulfill the writing requirement but serve as preparation for WS-T or WS-D courses in the spring semester. Students are advised to take other courses as well in which writing receives substantial attention.

LANGUAGE REQUIREMENT

Proficiency in a language other than one's own, ancient or modern, serves many ends. It deepens an appreciation of one's own language, increases sensitivity and understanding of the nature of language itself, and enables the student to gain a far more intimate understanding of different cultures than is possible through translations. Further, with regard to specific disciplinary ends, many graduate programs require a reading knowledge of at least two languages other than English.

For all these reasons, Haverford College requires all of its students to complete two semesters of college-level study of a language other than English by the end of the junior year. This requirement may be satisfied in one of the following three ways:

a. One full year of language study in one language at the level in which the student is placed by the appropriate Haverford College language department; or

b. Language study in a course conducted under Haverford College's approved International Study Abroad Programs, and as certified in advance by the Chair of the relevant language department at either Haverford College or Bryn Mawr College or by the Educational Policy Committee (EPC) when the language has no counter department at either Haverford or Bryn Mawr; or
c. Language study in a summer program administered by Bryn Mawr College in the country of the language if that program is an intensive, total-immersion program, fully equivalent to a full year of language study, and certified as such by the Chair of a Haverford or Bryn Mawr language department.

Language courses may be taken at Haverford or at any of the cooperating colleges: Bryn Mawr, Swarthmore, and with advisor and Registrar permission, the University of Pennsylvania. The Haverford department, however, must determine placement. Except as noted above, this requirement may not be fulfilled by language study in a summer school. One full academic year

of language study is the minimum requirement, and language courses do not satisfy the Divisional Requirement.

It is important to note, finally, that this requirement is effective beginning with the entering class of 2016. Members of previously admitted classes should consult the 2011-2012 College Catalog, which describes the options open to them for fulfilling this requirement.

DIVISIONAL REQUIREMENT

In addition to fulfilling the writing and foreign language requirements noted above, students are required to complete a minimum of three course credits in each of the three divisions of the curriculum: Humanities, Social Sciences, and Natural Sciences. At least two departments in each division must be represented, and one of the nine course credits must be quantitative as described below.

All courses taken Pass/Fail may be converted to a numerical grade if a student chooses to uncover the numerical grade on her/his transcript. Any course for which a numerical grade is recorded—even if initially taken Pass/Fall—may count towards the fulfillment of requirements in a student's major, minor, or concentration; the quantitative requirement; the divisional requirement; and the language requirement.

QUANTITATIVE REQUIREMENT

Quantitative reasoning is an extremely important skill. The impact of science and technology in the modern world has been enormous. Today, those who lack the ability to apply elementary quantitative methods to the world around them are at a severe disadvantage. Therefore, students must successfully complete at least one course credit which focuses on quantitative reasoning. Quantitative courses provide experience in some of the following:

a. elementary statistical reasoning;

b. other widely applicable types of mathematical reasoning;

c. working with, manipulating, and judging the reliability of quantitative data;

d. generating and understanding graphical relationships; and

e. representing theoretical ideas in mathematical language and using mathematics to obtain concrete numerical predictions about natural or social systems.

These and other courses that satisfy this requirement are indicated in the College course guide. The quantitative requirement must be fulfilled by the end of the junior year.

It is important to note again that all courses taken Pass/Fail may be converted to a numerical grade if a student chooses to uncover the numerical grade on her/his transcript. Any course for which a numerical grade is recorded—even if initially taken Pass/Fall—may count towards the fulfillment of requirements in a student's major, minor, or concentration; the quantitative requirement; distribution requirement; and the language requirement.

DEPARTMENTAL MAJOR REQUIREMENT

Each student must meet the requirements for a departmental, interdepartmental, or independent major program. During the fourth semester of attendance, or earlier only in the case of transfer students, all students should confer with the Chair of the department in which they wish to major and apply for written approval of a program of courses for their final four semesters. Such programs must provide for the completion, by the end of the senior year, of approximately 12 course credits or the equivalent, at least six of which must be in the major department and the others in closely related fields.

Students are accepted into major programs according to the following rules:

a. Acceptance is automatic with an earned average of 2.7 or above in preliminary courses in the department concerned;

b. Acceptance is at the discretion of the Chair of the major department if the average in such courses falls between 2.0 and 2.7;

c. Acceptance is rare but may be contingent upon further work in the department if the average falls below 2.0;

d. A student who is not accepted as a major by any department will not be permitted to continue at the College.

Students who have been formally accepted as majors by any department have the right to remain in that department as long as they are making satisfactory progress in the major. Each student is expected to file with the Registrar by the date specified in the academic calendar, a copy of his/her major declaration form signed by the Chair of the major department. Haverford students may major at Bryn Mawr College on the same terms as those that apply to Bryn Mawr students and at Swarthmore College, with the proper permissions.

The College affirms the responsibility of each department to make the work in the major field as comprehensive as possible for the student. There is need, in the senior year especially, to challenge the student's powers of analysis and synthesis and to foster the creative use of the knowledge and skills that have been acquired in previous studies. There is also the need to evaluate the performance of the senior in the major field, not only to safeguard the academic standards of the College, but also to help the student's self-evaluation at an important moment. In short, synthesis and evaluation in some form are both essential and may be achieved by various means as specified by the major departments in their statement of major requirements:

a. A senior departmental study course culminating in a comprehensive exam; or

b. A thesis or advanced project paper; or

c. A course or courses specially designed or designated;or

d. Some combination of these or other means.

To avoid undue specialization in a major program, the College requires that at least 19 of the 32 course credits required for graduation must be taken outside of a student's major field of study. For this purpose, courses that are cross-listed in several departments are considered to be outside the major field of study. There are four exceptions to this limitation:

a. The limitation does not apply to certain majors at Bryn Mawr College;

b. The limitation does not apply to majors in the Classics department; and

c. The limitation does not apply to those students who study abroad in programs, such as those at Cambridge or Oxford, where reading in one subject for the entire
year is the norm.

d. This limitation does not apply to double majors, but such students must still earn a certain minimum number of course credits outside the two majors. The number of course credits outside the majors will depend on the number of credits required for the double major.

CREDIT REQUIREMENT

To graduate from Haverford College, a student must complete successfully the equivalent of four years of academic work, or a minimum of 32 course credits. Eight of these 32 course credits must be taken on the Haverford College campus.

PHYSICAL EDUCATION REQUIREMENT

All students at Haverford are required to participate in the physical education program during their first two years of College in partial fulfillment of their degree.
For physical education purposes, the academic year is divided into four quarters. Students must complete six quarters of physical education, one of which is the "Intro To Fitness" class, prior to the start of junior year. "Intro To Fitness" covers a wide variety of material designed to provide students with the knowledge needed to incorporate fitness and proper nutrition into their lives at Haverford and beyond.
Varsity athletes who complete their in-season fitness workouts under the supervision of the Head Coach and Fitness Center Director will satisfy the "Intro To Fitness" requirement.

Alternative methods to satisfy the physical education requirement are available for students with medical conditions preventing exercise. The physical education requirement does not carry academic credit.

PRE-COLLEGE CREDITS

Entering students should arrange to have advanced placement scores forwarded directly to the Office of the Registrar at Haverford College. The Registrar will award one course credit for an AP score of 5 and one-half course credit for a score of 4. No credit is awarded for scores under 4. The maximum AP credit awarded to any student may not exceed four course credits.

Credits earned in summer school, in the Advanced Placement program, in "A" Levels, in the International Baccalaureate Program, the French Baccalaureate Program, the German Abitur, and the Swiss Maturite, or in college courses taken either before matriculation at Haverford or during the summers as a Haverford student will be recorded in such a way that the total for any one student does not exceed four course credits. Students should note that general education requirements are not satisfied by any such work, with the exception of summer credits earned during the student's years at the College.

SPECIAL MAJORS

Students with a minimum cumulative grade point average of 3.50 may design an independent major. Such majors must have the approval of the Committee on Student Standing and Programs (CSSP). Furthermore, a member of the Haverford or Bryn Mawr College faculty must serve as the student's advisor and also must agree to supervise the student's senior project or thesis. Students interested in pursuing an independent major at Bryn Mawr College must still apply through Haverford's Committee on Student Standing and Programs and not directly to Bryn Mawr College.

Students with a minimum cumulative grade point average of 3.50 may double major by completing the entire requirements of both majors, including thesis requirements. In order to double major, the student must obtain permission from the appropriate dean and the Chairpersons of both departments. When deemed appropriate by the two departments, a single thesis may satisfy the thesis requirements of both majors. However, a single thesis submitted for a double major may not be used to reduce either the amount or quality of work typically required by each major program. The single thesis option may be undertaken only with the written agreement of both departments.

AREAS OF CONCENTRATION

Students are strongly encouraged to elect an area of concentration at the same time they declare a major: that is, during the fourth semester of attendance. As with the major, earlier elections are not permitted.

Areas of concentration exist at Haverford in order to afford students a formal opportunity to pursue an area of study distinct from, but relevant to, their choice of major. Students who undertake such study select their concentration courses from among the existing courses offered by corresponding departments, including the Department of Independent College Programs.

To fulfill an area of concentration, a student must normally complete six course credits selected with the aid of a Concentration Coordinator who may consult with an advisory group for that concentration. Of the six course credits, no fewer than two and no more than three will also form part of the student's major.

Haverford College currently offers the following areas of concentration: Africana and African Studies, Biochemistry and Biophysics, Computer Science, Education and Educational Studies, Gender and Sexuality Studies, Latin American, Iberian and Latino Studies, Mathematical Economics, Middle Eastern and Islamic Studies, Peace, Justice and Human Rights, and Scientific Computing. These are described in the Haverford College catalog. A concentration in Creative Writing is available at Bryn Mawr College.

A concentration is not required for the Bachelor of Arts degree or the Bachelor of Science degree.

MINORS

Disciplinary and Interdisciplinary minors are currently offered at Haverford College in the following fields: Anthropology, Astronomy, Chemistry, Chinese, Classical Culture and Society, Comparative Literature, Computer Science, East Asian Studies, Economics, Education and Educational Studies, Environmental Studies, Fine Arts, French, Gender and Sexuality Studies, German, Greek, Health Studies, Japanese, Latin, Linguistics, Mathematics, Music, Neuroscience, Philosophy, Physics, Psychology, Russian, Sociology, and Spanish.

These are described under the entries for individual departments, programs and areas of concentration in the Haverford College Catalog; minors offered at Bryn Mawr are described in the Bryn Mawr College Undergraduate Catalog.

The minor is not required for the Bachelor of Arts degree or the Bachelor of Science degree.

As with majors, students may design independent areas of concentration (related to the major) or minors. These programs require the approval of the Committee on Student Standing and Programs (CSSP).

ACADEMIC REGULATIONS

FIRST YEAR PROGRAM

The responsibility for knowing and meeting the applicable degree requirements as well as the academic regulations of the College rests with each student. If there are any questions regarding these regulations, they should be raised with the student's academic advisor or dean. Since the College requires that students be exposed to areas of knowledge and ways of thinking which may be new to them and which may radically change their ideas about their eventual majors, and since it is important that this diversified experience be gained early, the faculty strongly recommends that first-year students take no more than one course in any department in either semester of the first year. For the same reasons, sophomores are strongly encouraged to take no more than two courses simultaneously in any one department.

REGISTRATION PROCEDURES AND POLICIES

Detailed information concerning registration is issued by the Registrar's Office each year and can be found on the Registrar's website under Academic Calendar. All deadlines for registration are the same at Haverford and Bryn Mawr. The dates are, however, different for both Swarthmore and the University of Pennsylvania.
Course Load and Credit

Students normally register for four course credits per semester, but since exceptions to this rule exist, they may arrange their programs with some flexibility. With consent of their advisors, students may enroll or pre-enroll for five credits in a given semester, or more than five credits with the approval of their dean.

If a student wishes to carry fewer than four credits in a semester and does not have sufficient extra credits by the end of that semester to be on schedule for the four year graduation limit, he or she must seek approval from his or her dean.

Students permitted a credit overload or an underload during any given semester must pay full tuition, regardless of the number of credits taken. In some unusual circumstances, exceptions are made.

Students are expected to achieve the following in order to make satisfactory progress toward the degree and be advanced to the next grade level:

end of first year: 8.0 course credits;
end of sophomore year: 16.0 course credits;
end of junior year: 24.0 course credits, full senior standing;
end of senior year: 32.0 course credits and fulfillment of all other requirements for the degree.

PASS/FAIL OPTION

A student carrying at least four course credits in a semester may elect to take up to one course credit Pass/Fail. The grade entered on the transcript for a course taken Pass/Fail will be a "P," if passed; "0.0," if failed; or a "W," if withdrawn. The student and the student's advisor will receive an official grade report showing the numerical grade in the course.

The Pass/Fail option exists to encourage students to take intellectual risks and to explore new and challenging areas of study without an overriding concern that such a move may have a deleterious effect on her/his GPA.

To take a course Pass/Fail, a student must inform the Registrar, using a form obtainable from the Registrar's Office, by the end of the third week of classes for quarter courses and by the end of the sixth week of classes for full-semester courses. The student must obtain approval from his/her advisor. When the instructor of the course is the student's advisor, the student must obtain approval from his/her dean.

All courses taken Pass/Fail may be converted to a numerical grade if a student chooses to uncover the numerical grade on her/his transcript. Any course for which a numerical grade is recorded—even if initially taken Pass/Fall—may count towards the fulfillment of requirements in a student's major, minor, or concentration; the quantitative requirement; distribution requirement; and the language requirement.

Students have the option to convert the Pass/Fail designation to a numerical grade upon application to the Registrar no later than the end of the first week of classes of the following term.

Additional limitations upon the Pass/Fail option
a. Neither the Freshman Writing Seminar nor courses taken on Haverford's approved international academic programs may be taken Pass/Fail.

b. A course for which a student records a "P" counts only towards the requirement for cumulative course credits. This course may not fulfill any requirement in a student's major, minor, or concentration; the quantitative requirement; distribution requirements; the language requirement; or any other requirements.

c. Students wishing to take courses Pass/Fail at Bryn Mawr, Swarthmore and the University of Pennsylvania must follow Haverford College procedures by filling out the appropriate form and submitting it to the Haverford Registrar by the appropriate deadline.

d. Haverford students may register for a cumulative total of four Pass/Fail course credits. Every course taken Pass/Fail will count toward the total four Pass/Fail course-credit allowed to each student, even if a numerical grade is subsequently recorded.

e. Courses in which the instructor decides to use the Pass/Fail option for all students are not included in the semester or cumulative limit.

COURSE CHANGES

Course changes may be made during the first seven class days of any semester. Thereafter, such changes are permissible only if a student's dean and academic advisor grant their written approval to do so and the student has given the Registrar requisite notice, by filing an add/drop form, by the end of the third week of classes.
Repeating Courses

Students may not count among the 32 course credits required for graduation any course that substantially repeats the content of another course already completed, even though the course numbers may suggest an advancing sequence.
Laboratory Courses

In cases where courses are comprised of a lecture and an accompanying laboratory, students must attend lectures and labs and satisfy all assignments relevant to both in order to earn credit toward graduation.

INDEPENDENT STUDY COURSES

Many departments offer independent study courses to encourage independent work by qualified students. These courses provide opportunities to investigate topics not covered in formal courses, do extensive reading on a subject, do fieldwork, or engage in library research. Students wishing to undertake independent study must secure permission for the project from their advisor and from a faculty member willing to supervise the work prior to registering for the course. Members of the faculty are under no obligation to supervise independent study courses. Such courses done without faculty supervision will not be given college credit. The course requirements for independent study are determined jointly by the instructor and the student. Students may register for up to one credit of independent study per term.

COURSE INTENSIFICATION

The College believes that experience in a wide diversity of courses is an essential part of a Haverford education, but the College also recognizes that students may sometimes profit from the opportunity to work more intensively in a smaller number of subjects. Therefore, with their advisor's approval and the instructor's permission, students may register for double credit in one course and, in unusual cases, in more than one course.

In a double-credit course, students undertake an approved program of independent work in conjunction with a regular course and submit a paper or pass an examination based on the independent work. Such work is not suitable in all subjects; the instructor of the course must be the final judge of whether it should be attempted.

YEAR-LONG COURSES

Ordinarily, full-year courses must be carried through two semesters for a student to receive any credit. In some cases, a student may receive credit for one semester without taking the other, but only with the permission of the Chairperson of the department. Departmental permission

must be in writing on a form obtained from the Registrar. In no case, though, may a student receive credit for the first semester of an introductory modern language course without satisfactorily completing the second semester.

AUDITING A COURSE

Students who wish to audit a course should obtain permission from the instructor. There are no special charges for auditing and such courses are not listed on the student's transcript.

COURSE LIMITS AT COOPERATING INSTITUTIONS

Students may enroll in courses at Bryn Mawr College, Swarthmore College and the University of Pennsylvania. At Penn, however, Haverford students are limited to two course credits per semester. Students should note that courses at Penn will be approved by the student's advisor and the Registrar only on a space available basis, and only for courses not offered on a regular basis at either Haverford or Bryn Mawr. Scheduling conflicts are not considered adequate reasons for seeking admission to courses at the University of Pennsylvania.

A senior electing to take a year-long or a second semester course at either Swarthmore, Penn or, with permission, at any other college or university, is responsible for verifying before the class begins that the instructor will submit a final course grade to the Haverford registrar by 5:00 p.m. on the day that senior grades are due, as indicated in the academic calendar. If the final grade is not submitted by that date and time, and the course is required for graduation, the senior should not expect to graduate until the following May.

CONTINUING STUDENTS

Students who intend to continue at Haverford College must complete registration during the time designated in both the academic calendar and on the instructions for registration. If students do not register on time and do not receive permission from their deans to delay registration, it will be assumed that they are not returning to Haverford. In such cases, their enrollment, financial aid, and housing, if any, will be considered available for assignment to others. Additionally, there is a late registration fee of $25.00 for each approved registration that is filed after the appropriate deadline, and a late verification fee of $25.00 for late course confirmation. These fees apply to all students registering in Haverford courses, regardless of their home institution.

GRADING

The following numerical grades are awarded at Haverford College:

4.0	3.7	3.3	3.0	2.7	2.3	2.0	1.7	1.3	1.0	0.0
A	A-	B+	B	B-	C+	C	C-	D+	D	F

In addition to the numerical grades issued at Haverford, the following letter grades may also be used:

CIP: Course in Progress - Grade added at the end of second semester;
P: Pass in a Haverford Pass/Fail course;
INC:Approved Incomplete;
W: Approved Withdrawal;
NGR: No Grade Reported - Grade awarded at end of full-year course;
NC: Fail/No Credit in a Bryn Mawr or Swarthmore

GRADING REGULATIONS

A course may not be counted toward a student's major requirement if the grade earned is below 2.0.

A grade of CIP may be submitted at the end of the first semester for senior research courses conducted throughout the year and for certain other courses agreed upon by the instructor, and announced at the beginning of the course.

If a student's attendance is unsatisfactory or his/her conduct in the classroom is disruptive, the instructor can meet with the student to discuss the problems, but must send him/her a written notice, a copy of which goes to the student's Dean, specifying the reasons for the instructor's concern and warning that any repetition of such conduct will result in being dropped from the course, resulting in a failing grade (0.0). No student may be involuntarily dropped from and failed in a course for failure to attend or to conduct him/herself suitably in the classroom unless the instructor has previously sent such

prior notice with a copy to the student's Dean and the instructor presents the student's dean with a formal notification that the conduct has persisted or renewed. Except in cases in which students must participate in group projects or are in a class in which they must critique each other's work as an inherent part of the course (as in seminars or freshman writing courses), failure to meet deadlines is not grounds for dropping a student from a course; in such instances, instructors should accordingly penalize students for lateness in grading. Policies regarding late work, and subsequent grade deductions, should be clearly stated in the course syllabi or some other formal document distributed to students in advance of assignments to be graded.

If a student is permitted to withdraw from a course by a Dean for unusual reasons—normally those beyond the student's control, most typically illness—the grade recorded is W.

Semester, yearly, and cumulative averages are based upon Haverford, Bryn Mawr, Swarthmore, and the University of Pennsylvania numerical grades only, and only during the academic year (September through May). All other work is regarded as transfer credit, including courses taken through Haverford's approved International Study Abroad programs, Bryn Mawr and the University of Pennsylvania summer sessions, and all credit granted for advanced placement, the International and French Baccalaureates, the German Abitur, the British "A" Levels, the Swiss Maturite, as well as those courses taken at colleges and universities in the United States and abroad. Course credit may be granted for this academic work, with appropriate grades (C or higher for college credit, B or higher for "A" Levels), and with appropriate scores for all ungraded work, but grades will not appear on the Haverford transcript, nor will the grades or scores earned become a part of any Haverford student's cumulative grade point average.

The grade of 0.0 (failure) will be given for any course for which no grade is reported on time, or for which an Incomplete (INC) is reported without duly submitting previously-approved supporting documentation to the Registrar.

When an INC is granted, a final date for completing the course must be specified. Failure to complete the course by the specified date will result in a failing grade (0.0).

Some students who fail a course because they do not complete the work or those who withdraw from a course may still wish to see the work from the course through. In such cases, the student has two options: he/she may pursue the work because it is interesting and not for credit or a grade. Alternatively, the student might approach the same instructor with whom the course was taken and ask if he or she would sponsor and grade the work during the next semester. The record would then show a grade of 0.0 or W for one semester, and a grade reflecting successful completion in the second semester.

REQUESTS FOR CHANGES IN GRADES

Students who believe they have sufficient reason to request a grade change must inform the instructor of their request within two weeks of the receipt of grades at the end of each semester. If the instructor believes the grade recorded is too low or too high, the grade will be changed.

DISPUTED GRADES

A student who believes that the grade submitted by the instructor in a course is wrong, and who fails to convince the instructor of an error, may appeal the case to the Chair of the department concerned. If the chair cannot be persuaded, the next (and final) appeal is to the Provost of the College. Students should consult their deans before entering upon such a course of action. They should recognize, moreover, that Haverford subscribes to the principle of academic freedom for its faculty, in light of which the Provost is ordinarily unable to authorize a change of an instructor's grade. Thus, the principal value of an appeal to the Provost is a possible identification of a pattern of inequities, in which case an investigation into the facts of the matter would be undertaken.

Finally, a student who receives a low grade in an examination, because of special circumstances such as illness, may petition the instructor and the Dean of the College for a special examination. If the request is granted, the grade for the special examination will replace the grade originally earned in the mid-year or final examination. In computing the final grade in that course, the

new course grade will replace the old one on the student's transcript, and the semester average will be revised accordingly. To invoke a review under this provision, the student must have notified the instructor immediately after stopping work on the examination, giving details to support the request for a special examination.

DEADLINES

All required work in a course is due at the times specified by the instructor, but in no event later than the dates specified in the academic calendar.

• All written work in courses, except final examinations or papers in lieu of final examinations, is due by the last day of classes for that semester.

• Final examinations (including take home final examinations) and papers in lieu of final examinations are due on the last day of the examination period for that semester.

INCOMPLETE (INC)

Incompletes for course work not completed by the last day of the examination period for that semester are granted only in cases of illness or when other extenuating circumstances of the most compelling nature are involved. A student who wishes to request an incomplete should secure the appropriate form from the Registrar and, if the instructor approves the request, specify on the form the work to be done and the final submission date. The form should then be submitted to the student's dean for final approval.

To have an incomplete processed by the Registrar, a student must follow the procedures outlined above. Ad hoc arrangements or commitments contrary to the regulations herein described or any arrangements to which the student's dean has not been a consenting party will not be honored. It should be noted, finally, Haverford's procedures and deadlines for Incomplete differ from Bryn Mawr and Swarthmore Colleges and the University of Pennsylvania. Students are obliged to know and follow the rules regarding Incomplete at these institutions.

ACADEMIC YEAR 2014-15 INCOMPLETE DEADLINES

Semester I: Incomplete work is due no later than Friday, January 09, 2015

Semester II: Incomplete work is due no later than Friday, June 5, 2015

The course instructor has jurisdiction over requests for extensions to complete assignments or permission to schedule make-up examinations during the semester (i.e., up to the last day of final examinations). A student who wishes to make such a request should speak directly with the appropriate instructor. No form is required.

CLASS ATTENDANCE

As a general rule, students are expected to attend classes unless excused. In some courses, class attendance is a requirement for satisfactory completion of the course. Lack of attendance in some cases may be grounds for dropping the student and assigning a failing grade. It is the student's responsibility to learn from the instructor how class attendance will be regarded in each course.

GRADUATION HONORS

Honors at graduation are awarded to students who have undertaken and completed academic work of high quality. There are two types of graduation honors:

• Departmental Honors, awarded by the academic departments

• College Honors, awarded by the College.

DEPARTMENTAL HONORS

The exact nature of departmental honors work and the criteria used in judging it are listed in the departmental statements in the College catalog and on the appropriate website. For such honors, the work in the department must be considerably superior to that required for graduation, including a demonstration of the student's competence, insight, and commitment to the field of interest. Individual departments may award Honors to students whose departmental work has been of high quality, and High Honors to those who have demonstrated both high quality and originality, indicating an unusual degree of competence.

COLLEGE HONORS

The Committee on College Honors and Fellowships will consider all students whose overall performance is exceptionally high for the following college honors awarded at Haverford College: cum laude, magna cum laude or summa cum laude.

Whereas distinguished performance in the major is the criterion for departmental honors, college honors recognize students whose work has been outstanding overall. In considering candidates for magna and summa cum laude, special attention is given to study that goes beyond the requirements of the major. Such study can be interdivisional, as evidenced by superior work outside one's major division; interdisciplinary, as evidenced by superior work in more than one department of a single division; by superior work in several converging domains of knowledge represented by an area of concentration or the equivalent; or, by other evidence of superior work beyond the requirements of the major and the College. Both magna cum laude and summa cum laude are awarded by the faculty on recommendation of the Committee on College Honors and Fellowships. Summa cum laude is awarded to students of exceptional merit.

All students who have earned GPA's in the top 30% of the graduating class, and who are not awarded magna cum laude or summa cum laude, will be awarded cum laude.

RESIDENCY AND OTHER REQUIREMENTS FOR THE DEGREE

Students, other than transfer students, may arrange for reduced programs of six or seven semesters by taking advantage of several options:

a. They may take five course credits per semester instead of the normal load of four;
b. They may use up to four course credits earned in combination of approved pre-Haverford study, including approved summer study at other institutions while a student at Haverford; or
c. They may study at another American college or university or at a Haverford-approved program abroad for a semester or a year.

It is important to note that any combination of options will need to provide for a minimum of six semesters in residence at Haverford College and at least 24 Haverford course credits. Such Haverford course credits may be taken at Haverford or any of the three cooperating institutions —Bryn Mawr College, Swarthmore College, or the University of Pennsylvania— during the academic year to be counted as credits while in residence at Haverford. Students, however, must realize that no student may graduate from Haverford College without having taken a minimum of eight course credits on the Haverford campus. In the cases of transfer students, decisions about residence and credit requirements are made by the deans, but transfer students must complete a minimum of 16 Haverford course credits and four semesters in residence to be considered for a degree at the College.

Note that the seven-semester option allows the possibility of studying abroad for one semester, while the six-semester option does not. See also the Academic Flexibility Program.

MONITORING ACADEMIC PERFORMANCE

The Committee on Student Standing and Programs (CSSP), a standing committee of the faculty, is composed of at least two faculty members appointed by Academic Council, three students (one of whom must be a sophomore) appointed by Students' Council, the Director of Multicultural Affairs, and one dean, who serves as executive secretary.

The Committee is charged with reviewing students' academic performance in consultation with their deans and, if necessary, with members of the Athletic department, the Admissions office, and (to the extent consistent with confidentiality) the Counseling and Psychological Services (CAPS) staff. CSSP relies on the faculty to convey notes of concern to the deans of those students in their courses who are experiencing academic difficulty. The Committee reviews these faculty reports as needed but most typically at the middle of each semester and sends letters to some students apprising them of the concerns, urging them to consult with their advisors, counselors, deans, and instructors, and recommending, where appropriate, that they

make use of the College's peer tutoring system, the Office of Academic Resources, and other academic support resources.

In dealing with academic deficiencies, CSSP has broad authority to set requirements for a student's continued enrollment, most notably by placing him/her on one of several levels of "Academic Warning" (probation) or requiring him/her to take a College Leave for a minimum of one year; such decisions are typically made at the end of each semester but may be made at any point deemed advisable by the Committee. The Committee has full latitude to place a student on College Leave even if the student has not previously been placed on Academic Warning.

Students are accountable to themselves and to the College (as embodied in the Committee) for the use to which they put both their talents and the resources of the College. Each case that comes before the Committee is treated individually within the context of College policy, and from this perspective, accountability means that some students who perform poorly but manage to pass their courses may still be placed on College Leave and ones who are failing may, on occasion, be permitted to continue. However, although CSSP may permit students who fail some of their courses to continue at the College, the Committee must first be convinced that there is a high probability that such students will do work that is at least consistently adequate in the immediate future.

When CSSP is considering the possibility of placing a student on College Leave, it will postpone making its final decision until it has held a second meeting, known as a "Drop Hearing." Such hearings typically happen at the end of January, immediately prior to the spring semester, and in early June in response to spring semester grade reports, but the Committee may hold Drop Hearings at any point in the calendar year. Students who are summoned to such hearings but not placed on College Leave will typically be placed on Very Strict Academic Warning.

The student will be invited to appear before the Committee during a Drop Hearing and will be permitted to attend the hearing in the company of an academic advisor or other faculty member solely to provide moral support; such a "support person" may not address the committee or serve as an advisor to the student during the course of the hearing. If the student does not appear, the Committee will make a decision in the student's absence and will inform him/her of its decision in writing. Since a Drop Hearing is intended to be a dialog, the Committee will not entertain written statements from students summoned to such hearings.

Students placed on College Leave may appeal the Committee's decision to the President of the College on procedural grounds only. Appeals must be in writing, must state the grounds for the appeal, and must be received by the President within 72 hours of the student's Drop Hearing. The following are the procedures of a Drop Hearing:
a. the Committee will send the student notification of the Committee's decision to hold a Drop Hearing 3-5 days before the hearing;
b. the student will be given an opportunity to speak to the Committee during the hearing;
c. at least one student, one faculty member, and one dean will be present at the hearing and will constitute a quorum;
d. the student will be apprised of the Committee's decision immediately after it is made.

Second-semester seniors should note that simply meeting the College requirements and accumulating 32 credits is not necessarily sufficient to ensure graduation.

For example, the Committee (which reviews all senior academic records before the faculty votes on granting of degrees each spring) may decide that a student who has failed two out of the four courses in which he/she was enrolled in the eighth semester may not be permitted to graduate even though he/she has the 32 credits required for graduation. Similarly, seniors who fail courses in their major may be judged to have failed to meet the academic standards of the College and may not be permitted to graduate even if they have successfully completed the required number of courses and satisfied all general education requirements.

SPECIAL ACADEMIC PROGRAMS

INTERCOLLEGIATE COOPERATION

Haverford has long enjoyed a close cooperative relationship with its neighbors, Bryn Mawr College and Swarthmore College. This consortial relationship gives students from all three colleges access to courses and to most of the academic facilities on the three campuses. As a consequence, students at all three colleges have the advantages offered by a small college, together with the academic resources of a much larger, combined institution. The major programs of Bryn Mawr and Haverford Colleges are open equally to all students on both campuses. In some cases, Haverford students may also major at Swarthmore College.

In addition to the cooperative agreement with Bryn Mawr and Swarthmore, Haverford has made arrangements with the University of Pennsylvania, and full-time Haverford students are permitted to have library privileges and, upon presentation of the proper credentials, to enroll for courses there without added expense. Laboratory fees, which are not included under reciprocal agreements with Swarthmore College or the University of Pennsylvania, must be paid by the student. Students taking courses at the University of Pennsylvania must make their own transportation arrangements, and are limited to two courses per semester at Penn.

Each student must satisfy Haverford's general college graduation requirements but is otherwise free to choose from the courses and other academic opportunities offered at its three partner institutions. If a student majors at Bryn Mawr or Swarthmore, it will be so noted on their academic records. Students may not major or minor at the University of Pennsylvania. Haverford students are obligated to satisfy the academic regulations (e.g., regarding deadlines, attendance, extensions) at Bryn Mawr, Swarthmore, and the University of Pennsylvania when they are taking courses at such institutions. Administrative interpretations of each institution's academic regulations are made by the deans of the college where the course is given.

ACADEMIC FLEXIBILITY PROGRAM

The Committee on Student Standing and Programs (CSSP) is empowered to make decisions on requests from students for exceptions to the academic regulations of the College. Typically, requests for exceptions involve unusual circumstances and relate to such issues as special majors and graduation in six or more than eight semesters. Students who intend to petition the Committee should first consult with their dean and their academic advisor. Petitions should be submitted in writing to CSSP by the deadlines noted below; failure to meet these deadlines may result in a delay in the consideration of a petition until the following semester.

For Semester I of the 2014-15 Academic Year: Friday, October 31, 2014;

For Semester II of the 2014-15 Academic Year: Friday, March 20, 2015.

Petitioning students should note that their advisor's and dean's approval does not guarantee that CSSP will grant their request. If the Committee does not approve his/her proposal, the student, under rare circumstances, may appear in person to appeal its decision.
In addition to petitions for independent and interdepartmental majors, the following are examples of some of the academic program options that students may pursue only with the approval of CSSP.

CREDIT FOR NON-COLLEGIATE ACADEMIC WORK

All students must earn at least 24 course credits at Haverford, Bryn Mawr, Swarthmore Colleges or the University of Pennsylvania. However, it is recognized that there are important educational opportunities for a student to do work, for example, in a non-university research laboratory,

to do a supervised archaeological study on site, etc., for which the College will occasionally grant academic credit. With the approval of CSSP, a student may take up to four course credits in their academic undergraduate career, provided the following conditions are met:

• The work is closely supervised by a person who is a faculty member at a college or university or who clearly holds the comparable qualifications;
• The student's academic advisor approves the activity. If the work is in an area outside the advisor's field, approval will also be required from a Haverford faculty member competent in a relevant field;
• The project results in a product judged to be satisfactory by the field supervisor and the Haverford faculty member;
• In most cases, the work is unpaid.

For each Haverford course credit earned in this manner, a student will be charged tuition at the rate of $5,848 per course credit. If credit is granted for such work by another academic institution, the credit may be transferred to Haverford without further tuition charges. Before credit can be transferred, however, the procedures for approval as outlined above must be followed.

GRADUATION IN FEWER THAN EIGHT SEMESTERS

A student may, in consultation with his/her dean, and with the approval of his/her academic advisor and the Committee on Student Standings and Programs (CSSP), select a six-semester program consisting of at least 30 course credits, including up to two approved AP credits or summer courses. Because of the college residency requirement, this program is not compatible with international study. A student for whom a six semester program has been approved must, by April 15 each year, confirm to his/her dean in writing that he/she intends to continue in this program.

Students may also meet the normal requirements of 32 Haverford approved course credits but do so in only seven semesters of study by enrolling for five course credits for four semesters and for four course credits for three semesters. This option will allow students to spend a full semester away from the campus at some time during their college careers and still graduate within four years of matriculation. Although there is no deadline for declaring seven-semester programs, and students do not need the approval of CSSP to exercise this option, an early declaration of the intention to graduate in seven semesters will be helpful to both the student and the College. Students considering this option are therefore urged to consult their dean as early as possible.

EXTENDED PROGRAMS

Although most students are expected to graduate in four academic years, some may be permitted to take more time to complete their degree requirements. Examples would include students with documented disabilities which prevent them from carrying a full course load and to whom CSSP has granted directly relevant accommodations as defined by the Americans with Disabilities Act and students whose programs would be substantially enhanced by another semester of work. In all such cases, the student must secure the prior approval of the Committee on Student Standing and Programs.

INTERNATIONAL STUDY

Upon request, qualified students in good academic and disciplinary standing may be granted permission to spend a semester or a year studying in a foreign country. The College recognizes approximately 70 programs in 34 countries. Students interested in studying abroad should consult the Dean of Global Affairs early in their sophomore year, and should have a GPA of at least 3.0

Students who wish to study abroad and receive Haverford credit may do so by applying to any of the programs on the approved list. They must complete the appropriate forms by the specified deadlines and should discuss their program and course selections with their major, minor, concentration advisor(s). Courses taken while studying on approved programs count toward fulfilling major, minor and concentration requirements as well as College degree requirements.

Monitored by the College's Educational Policy Committee (EPC), the list of approved programs "provides opportunities that both extend and complement the offerings of Haverford departments and answer the specific needs

and wishes of the students." According to EPC policy, students who do not request and receive permission to study abroad through the International Academic Programs Office will not receive Haverford credit for their work. EPC will not consider retroactive proposals under any circumstances. Students who do not wish to pay Haverford tuition and/or receive credit may not attend the programs on the approved list.
In the rare case where a student may wish to receive credit for a program not on the approved list, he or she may petition to add the program to the list by using the following procedure:
a. Collect all pertinent information about the program, including catalogs, course descriptions, modes of evaluation of academic performance, syllabi, reading lists, and faculty CVs.

b. Present the written proposal and materials to Dean of Global Affairs one year in advance—March 1 for spring programs, November 1 for fall programs. The deadlines are firm.

c. If the program is commensurate with the programs on the approved list, the student must prepare a petition for consideration by EPC. This petition must explain why the existing approved programs do not fulfill the student's academic needs, and how the proposed program does so.

A statement from the student's faculty advisor endorsing the program and explaining how it complements the work of the major or the concentration must accompany the petition. The department must provide a list of approved courses fulfilling major requirements. If the work is outside the student's major, a statement from a member of the faculty who is familiar with the program will also be required. Petitions are forwarded to the Student Study Abroad Advisory Board and the International Academic Programs Faculty Advisory Board for consultation. In order to ensure the quality of programs on the list, an on-site evaluation by a Haverford faculty member will be required before approval is granted. Faculty members who wish to add programs follow similar procedures.

FINANCIAL AID FOR INTERNATIONAL STUDY

Haverford College meets the needs of students eligible for financial aid, whether they are at Haverford or on approved study abroad programs. Students can apply their financial aid awards, including their Haverford grant funds, toward their approved program abroad. More information may be found at: *www.haverford.edu/studyabroad/financial_aid/*

4+1 ENGINEERING PROGRAM WITH THE UNIVERSITY OF PENNSYLVANIA

Haverford College and the University of Pennsylvania have formed a partnership that enables qualified Haverford undergraduates to gain early and expedited admission into a Master's degree offered by Penn Engineering. Like Penn Engineering undergraduates, Haverford students may apply to an appropriate Master's degree program at Penn Engineering as an external "sub-matriculate."

To initiate the process, a student submits a completed "External Sub-matriculation Application" to Penn Engineering for review and approval. Applications should be submitted no later than the end of the summer after the student's sixth semester at Haverford, and no earlier than the end of his/her fourth semester. To apply, students must have the necessary background and major to enter into the desired Master's degree program (degree programs are articulated on the Penn Engineering Web). A minimum cumulative GPA of 3.0, as well as a minimum 3.0 GPA in all math, science, and engineering courses, are also required to apply. The GRE is not required; however, students are strongly encouraged to take the GRE, especially those who have interests in pursuing a Ph.D. later. Admission decisions are made on a selective basis.

Via the existing "Quaker Consortium" arrangement, as admitted "sub-matriculates," Haverford undergraduates may take up to three graduate courses to count toward their Penn Engineering Master's degree, subject to approval by their Graduate Chair/Adviser. Biotechnology Master's students may take up to four graduate courses. These may not be taken prior to submatriculating into Penn Engineering. Per Penn Engineering's rules on double-counting courses for submatriculates, no more than three courses may be used to satisfy both the Penn master's and the Bachelor's at Haverford. (Note that through the "Quaker Consortium," there are no tuition and fees charged to Haverford students by Penn for taking courses at Penn.)
All admitted 4+1 students are fully expected

to graduate and receive their Bachelor's degree from Haverford at the end of their fourth year at Haverford. If this is not achieved, the student will be dropped from the Master's degree program at Penn Engineering. In the fifth and final year of the 4+1, students will be enrolled as full-time master's students in Penn Engineering, having fully completed their undergraduate degree at Haverford. During this year, the student will complete the remainder of the courses required by their specific Master's degree program. The total number of courses for an engineering Master's is 10 (11 in Biotechnology). The student will be financially responsible for all tuition and fees in the fifth year (Penn Engineering Master's tuition and fees are charged by the course).

Interested students should consult their advisor and the College's advisor for the 4+1 program (Prof. Walter Smith) as early as possible.

3/2 ENGINEERING PROGRAM WITH THE CALIFORNIA INSTITUTE OF TECHNOLOGY

Haverford College and the California Institute of Technology (CalTech) have a joint program under which a student who is interested in engineering may, in the first semester of his/her junior year, apply for transfer to an engineering program at CalTech. If accepted in the program, then at the end of five years (three at Haverford, two at CalTech), the student will be awarded a Bachelor of Arts or Bachelor of Science degree by Haverford and a Bachelor of Engineering Degree by CalTech. For each engineering discipline, there is a required set of courses to be taken at Haverford during the first three years of the program. Interested students should consult their advisor and the College's advisor for the 3/2 program (Prof. Walter Smith) about the proper course selection; this consultation should occur as early as possible. A cumulative grade point average of 3.5 is generally expected for this program.

3/2 CITY PLANNING PROGRAM WITH THE UNIVERSITY OF PENNSYLVANIA

Haverford students majoring in the Growth and Structure of Cities at Bryn Mawr College may apply for admission to the 3/2 Program in City Planning offered in conjunction with the University of Pennsylvania. This arrangement with the University of Pennsylvania's Department of City and Regional Planning allows a student to earn both a Bachelor's degree in the Growth and Structure of Cities at Bryn Mawr and a Master of City Planning (MCP) at the University of Pennsylvania in five years. Qualified students who are accepted into the 3/2 program will be eligible for consideration for financial aid during their period of residence at the University of Pennsylvania. Students interested in the 3/2 BA/MCP program may apply through their Cities major advisor during their sophomore or junior years, although they are encouraged to begin discussing their interest with members of the Cities Program as early as the beginning of their sophomore year.

4+1 BIOETHICS PROGRAM WITH THE UNIVERSITY OF PENNSYLVANIA

Study for four years at Haverford, then one year at Penn, and receive a Bachelor's of Arts or Bachelor's of Science from Haverford and a Master's in Bioethics (MBE) from Penn's Bioethics Program in the Perelman School of Medicine.

This 4+1 partnership enables qualified Haverford undergraduates to gain early and expedited admission into a master's degree offered by the Penn Department of Medical Ethics and Health Policy. You may apply to the MBE program as an external "sub-matriculate" no later than the end of the summer after your sixth semester at Haverford and no earlier than the end of your fourth semester. A GPA of 3.5 is required to apply; the GRE is not required. The admissions decision is based on your transcript and letters of recommendation from one or more Haverford faculty members.

After being accepted, you will take up to three graduate bioethics courses at Penn while still enrolled at Haverford; course selection is subject

to approval by the program's Director of Education. There is no additional financial charge for these courses. During your four years at Haverford, you will also complete all graduation requirements, which can include courses taken at Penn as determined by Haverford's Director of Health Studies, Prof. Kaye Edwards You graduate from Haverford at the normal time, along with your class.

The fifth year of the program is spent entirely at Penn. Nine courses in all (including those taken while a Haverford undergraduate) are required to complete the requirements for the MBE degree. There is no financial aid available from Penn for the fifth year of the program, though you are eligible for federal student loans. The tuition is approximately $4,900 per course as of 2014-15.

If you are interested in applying for this program, please contact Kaye Edwards, Director of Health Studies, at *kedwards@haverford.edu.*

For more information on the program see *medicalethics.med.upenn.edu/education/master-of-bioethics-mbe*

ONE-YEAR MASTER'S PROGRAM AT CLAREMONT MCKENNA COLLEGE'S ROBERT DAY SCHOOL OF ECONOMICS AND FINANCE

If accepted into the Robert Day School of Economics and Finance graduate school, you will receive full scholarship for their one-year Master's in Finance at the Claremont McKenna College (CMC) campus in Claremont, California. The program offers an intensive curriculum in economics and finance with an additional emphasis on co-curricular programming that develops career skills and supports post-graduate job placement.

The scholarship includes full-tuition. You remain responsible for the cost of living and for providing proof of health insurance. Program fees are minimal and all program events, including networking trips, are fully funded by the program.

Eligible students will present a strong academic record, including strong quantitative skills and course work in macroeconomics and microeconomics at the intermediate level, statistics, and, if possible, corporate finance. However, applicants can present a variety of academic profiles for consideration. Course work planned for the summer before matriculation in the graduate program can be taken into consideration in the selection process.
The application deadline is in February of the senior year. If you are interested in applying for the Master's in Finance at CMC's Robert Day School, please contact Anne Preston, Chair of Economics, at apreston@haverford.edu.
For more information on the Master's in Finance at CMC's Robert Day School of Economics and Finance see
www.cmc.edu/rdschool/academic/

FIVE YEAR PROGRAM WITH THE CENTER FOR LATIN AMERICAN STUDIES AT GEORGETOWN UNIVERSITY

Haverford has been invited to join other distinguished colleges and universities in an agreement with the Center for Latin American at Georgetown University to participate in a five-year joint degree program. The cooperative agreement allows undergraduate concentrators in Latin American, Iberian, and Latino Studies to pursue an accelerated course of study in a graduate degree.
The program offers the highest qualified applicants the opportunity to count four courses from their undergraduate study toward the M.A. program in Latin American Studies at Georgetown University, enabling them to complete the degree in two semesters and one summer.
The five-year B.A.-M.A. program is designed for those students who demonstrate excellence at the undergraduate level. To qualify, you must maintain a minimum GPA of 3.5, declare an interest in the Cooperative degree program during your junior year, and participate in the Center's summer study abroad program. During the senior year, you apply through the normal Georgetown M.A. application cycle. If accepted into the M.A. program, you may transfer up to four courses (two from the CLAS summer study program in Mexico or Chile and two advanced courses from Haverford) to be applied to the M.A. All M.A. prerequisites must be completed

during your undergraduate education, and you must have concentrated in Latin American Studies while at Haverford.

For more detailed information, consult Prof. Roberto Castillo or visit the Georgetown Center for Latin American Studies.

TWO-YEAR CHINA STUDIES MASTER'S PROGRAM AT ZHEJIANG UNIVERSITY

If accepted into China Studies Program (CSP) of Zhejiang University (ZHU), you will receive full scholarship for their two-year Master's in China Studies in Hangzhou, the location of ZJU. The program is conducted in English, but training in Mandarin is provided to help students navigate the university, the city, and the broader culture, where you will undertake an internship between your first year (which focuses on classroom study) and your second year (which focuses on independent research related to your topic of study).

The scholarship will include tuition; registration fee; living stipend of CNY 1,700 per month; free accommodation on campus; fees for laboratory experiment, internship, and basic learning materials; basic medical insurance including fees for outpatient medical services, accidental injury, and hospitalization medical treatment; one-time settlement subsidy of CNY 1,500; and possible research-related domestic travel fund.

The application deadline is in April of the senior year, by which time all the required application materials should reach the Office for China Studies Program at ZJU. The decision letter will be mailed out in June; the school year will start in September.

If you are interested in applying for the two-year masters degree of the CSP program, please contact Paul Smith, Chair of East Asian Studies at Haverford, at psmith@haverford.edu.

For more information on CSP at ZJU see *iczu.zju.edu.cn/english/type4/01031403.html*

STUDY AT OTHER AMERICAN COLLEGES

Some students may also study at another college or university in the United States for the enrichment to be gained through different or more diversified liberal arts offerings. Some study at another school simply to experience college life in a different setting. Haverford has formal exchange programs with Claremont McKenna and Pitzer Colleges in California, and Spelman College in Georgia. Permission for such study must be granted by the student's advisor and dean. All courses must be approved in advance by the Chair of the department in question. In order to provide a semester's credit at Haverford (four course credits), a program at another institution must represent at least one-eighth of the degree program there; and similarly, in order to provide a year's credit at Haverford, the program must represent one-quarter of the degree at the other institution.

Students who expect to study away from Haverford for a semester or a year must confirm their intention in writing to their dean, using the same timetable as that for a Dean's leave. They should also inform their dean when they have been accepted by the institution to which they have applied. Naturally, they will have discussed at an earlier time tentative plans with their advisor and dean. They should, finally, ensure that they will have earned 19 credits outside of their major and fulfilled the general education requirements by the end of the senior year.

Note: Students may not attend programs abroad through an American college or university during the academic year and receive credit at Haverford unless they go through the Office of International Academic Programs.

INDEPENDENT STUDY WHILE NOT IN RESIDENCE

Students who wish to carry independent study credit while away from the College should secure the approval of their advisors and that of the instructor(s) involved before submitting the written proposal to the dean for final approval. If approved, students will be charged at rate of $5,848 per credit.

SUMMER STUDY AT ANOTHER INSTITUTION

A student wishing to obtain Haverford credit for summer school at another institution should follow the procedures as outlined below:

a. The student should secure from the Registrar's website a form entitled, "Application for Summer School Credit";

b. With the form, the student should secure the approval of his/her faculty advisor, dean, and the Chairperson of the Haverford department which corresponds to the field in which the work is to be done. Advance approval is required for obtaining Haverford credit and approval should be based on the suitability of the course for Haverford credit; Approval sought retroactively will, in all likelihood, be denied. If no such department exists at Haverford College but does at Bryn Mawr College, then the student should seek the approval from the appropriate Bryn Mawr College Department Chairperson;

c. In seeking approval, the student should first complete the descriptive information about the course (name, number, amount of credit conferred at the other institution, and the institution's name). The student should also present the catalog, listing the course descriptions;

d. The faculty advisor's signature should represent an approval of the course as a part of the student's program at Haverford.

e. Faculty assigning credit should proceed on the principle that at any institution, each course counts as a fraction of the credit required for the degree. At Haverford, the minimum graduation requirement is 32 credits, equal to 128 semester hours. Therefore, summer credit equivalents must be identical to academic year equivalents for transfer credit to be considered at Haverford.

Other regulations governing summer study:

a. Courses taken in summer school will not satisfy Haverford course requirements for the major unless prior written approval is granted by the major supervisor;

b. A summer course must not be a repeat of or at a lower level than a course already a part of the student's Haverford academic record;

c. To receive Haverford credit for courses taken in summer school, a student must earn a grade at least one full grade above the lowest passing Haverford grade: at least a 2.0 on the Haverford scale, or a grade of "C" on the A-F scale;

d. Permission for credit must be secured before the course is taken;

e. For summer work at Bryn Mawr College, only the permission of the student's dean is required;

f. In all cases of summer school work, including courses taken at Bryn Mawr and the University of Pennsylvania, students should have official transcripts forwarded to the Haverford College registrar. Unofficial grade reports will not be accepted for evaluation;

g. Finally, students should realize that summer school credit, if accepted by Haverford, will transfer to Haverford simply as course credits. Course titles and credit values will be indicated on the record, but in no instance, including summer work at Bryn Mawr College and the University of Pennsylvania, will grades earned appear on the Haverford record; likewise, in no instance will the grades earned appear as part of the student's cumulative grade point average at Haverford;

Students should follow the above procedures for all summer study, including summer study abroad. Approval for summer study abroad is identical to that for domestic summer study.

ADMISSION

OVERVIEW

The admission process at Haverford is conducted as a comprehensive review, treating each application personally and individually, and with extraordinary care and attention to detail. We aim to provide you with the opportunity to convey the broadest sense possible of who you are, what you have achieved during your secondary school experience, and how you will both contribute to and grow from a Haverford education.
Our primary consideration in the evaluation process is academic excellence. Haverford is interested in students who demonstrate ability and interest in achieving at the highest levels of scholarship and service; who will engage deeply and substantively with the community; and who are intent on growing deeply both intellectually and personally.

To this end, we consider:

- secondary school transcript;
- standardized tests (see next section for required exams);
- teacher and counselor recommendations;
- quality of writing as demonstrated in your essays, testing, and recommendations;
- potential for contribution to the campus community;
- an interview, which is strongly recommended, especially for students who live within 150 miles of the Haverford campus.

We give the greatest weight to your academic transcript. The rigor of the courses you've taken, the quality of your grades, and the consistency with which you've worked over four years give us the clearest indication of how well you will do at Haverford.

Standardized tests also play a role in helping us evaluate you in comparison to students taught in many different secondary schools.

Recommendations, the form and content of your writing, your potential for contribution to the campus community, and your interview also help the Admission Committee draw fine distinctions among highly talented applicants. Financial need does not influence our admission decision for U.S. citizens and permanent residents.

APPLICATION INSTRUCTIONS

REQUIRED STANDARDIZED TESTS

Haverford requires that you submit the results of the three-part SAT exam and two SAT Subject Tests; or the ACT with the optional writing test. If you submit the ACT, you do not need to submit any SAT Subject Test results. Please be sure to take the exams at least one month prior to the application deadlines.
You may register online at:

SAT–Haverford Code #2289
www.collegeboard.com

ACT–Haverford Code #3590
www.actstudent.org

EARLY DECISION

This is a good option only for those who have decided early in the college search process that Haverford is their clear first choice. As an Early Decision applicant, you agree not to be a candidate in any other college's binding application process. You also agree, if admitted, to withdraw any existing applications to other colleges, to not initiate any new applications, and to enroll at Haverford.

Early Decision applications should be postmarked by November 15, and we mail our application decisions by December 15. Early Decision applicants may be admitted, deferred for reconsideration with the Regular Decision pool, or denied admission.

REGULAR DECISION

Your application should be postmarked by January 15, and you will receive our decision by early April. If you are admitted, you will need to reply to our offer by May 1. If you wish to remain on another school's waitlist after May 1, let us know, and we will extend your deadline.

DEFERRED ADMISSION

You may request to defer enrollment for one year provided you make that request by May 1. However, you may not enroll as a full-time student at any other college or apply to any other colleges during the year off.

EARLY ADMISSION

If you want to enroll at Haverford after completing your junior year of high school, you may apply to do so through the Regular Decision process. (Early Decision application is not allowed.) You must include a letter with your application detailing your reasons for choosing this option. You are also required to have an interview with a member of our Admission staff.

TRANSFER, GUEST, AND SPECIAL APPLICANTS

If you want to be a Transfer Student (offered for fall entry only), a full-time Guest Student for a semester or an entire year, or take an occasional class as a Special Student, you must use a different application for admission, which will have different deadlines. Please see our website for more information.

INTERNATIONAL APPLICANTS

We welcome applications from international students. Currently, about ten percent of our students grew up or attended high school abroad. Our Admission Committee is familiar with worldwide education systems. Regardless of your citizenship or geographic location, you should follow the same application process required of any other student. You are required to submit the same standardized tests as all other applicants. If English is not your first language, we recommend that you take the Test of English as a Foreign Language (TOEFL). You may register online at: TOEFL–Haverford Code #2289. *www.ets.org/toefl*

IB, AP, INTERNATIONAL EXAMS, AND COLLEGE COURSES

If you have taken International Baccalaureate, Advanced Placement, international exams (such as A-Levels), or college courses during secondary school, we view this as significant evidence of your academic accomplishment and preparation. If you have taken classes at a college or university, please have a transcript sent directly from the school to our office.

AFTER YOU APPLY

You will receive a receipt for your application via email after it is processed and a second notice by email once it is complete. If your application is incomplete, we will notify you via email using the email address that you provide us in your application. Please respond promptly and make sure to let us know if your email address changes.

2014-15 TUITION

Tuition..... $46,790
Room and Board..... $14,350
Student Activity fees.....$424
First-Year Orientation fee.....$220
Total..... $61,784

FINANCIAL AID

Haverford's admission policy is "need-blind" for United States citizens and permanent residents. This means that our application decision is based solely on your achievements, talents, and promise. Your family's financial situation is not considered —it has no bearing on whether or not we offer you admission. Please note that Haverford College has limited financial aid for applicants who are not citizens or permanent residents of the United States. For more information on Haverford's need-based financial aid program, please see the following pages and visit the Financial Aid link on our website (*www.haverford.edu/financialaid*).

RETURNING STUDENTS

The 2014-2015 deadline for current/returning students to file all necessary forms with the federal government, the College Board, and Haverford College is April 20. Instructions, deadlines, and forms are available at *www.haverford.edu/financialaid*.

RATE OF GRADUATION

In compliance with the federal Student Right to Know Act of 1990 (Public Law 101-542), Haverford College provides the following information to prospective and currently enrolled students.

Class entering Fall 2007 (Class of 2011): Size at entrance, 315, Graduated 4 years later: 287 Graduated 5 years later: 6, Graduated 6 years later: 1, Total graduated, 294, or 93.3% of the original class.

COURSES OF INSTRUCTION

Africana & African Studies(Bi-Co)*
Anthropology •
Arabic**
Arts: Dance, Theater, and Writing (BMC)** •
Astronomy •
Athletics**
Biochemistry & Biophysics*
Biology
Chemistry •
Classical & Near Eastern Archaeology (BMC)
Classics •
Comparative Literature •
Computer Science •
Concentration in Scientific
Computing •
East Asian Language & Culture (Bi-Co) •
Economics •
Education and Educational Studies* •
English
Environmental Studies •
Film Studies BMC
Fine Arts
French & Francaphone Studies •
Gender & Sexuality Studies* •
Geology (BMC)•
German and German Studies •
Growth & Structure of Cities (BMC) •
Health Studies (Bi-Co) •
Hebrew & Judaic Studies (BMC)* •
History
History of Art (BMC) •
Independent College Programs
Italian (BMC) •
Latin American, Iberian, & Latino Studies*
Linguistics (Tri-Co) •
Mathematical Economics*
Mathematics & Statistics •
Middle Eastern & Islamic Studies*
Music •
Neuroscience•
Peace, Justice & Human Rights*
Philosophy •
Physics •
Political Science
Psychology •
Religion
Romance Languages (BMC)
Russian (BMC) •
Sociology •
Spanish •
Writing Program**

*Area of Concentration
**Program
• Minor

NUMBERING SYSTEM AND SYMBOLS

001—009: elementary courses
100—199: first-year and introductory courses
200—299: second-year courses
300—399: advanced courses
400—499: special categories of work (e.g.) 480 for independent study courses

The following letters (following a number) indicate:

"a": a one-credit course given in the Fall Semester

"b": a one-credit course given in the Spring Semester

"c": a one-credit course given throughout the year

"d": a half-credit course given September—October

"e": a half-credit course given November—December

"f": a half-credit course given throughout the first semester

"g": a half-credit course given February—March

"h": a half-credit course given April—May

"i": a half-credit course given throughout the second semester

"j": a half-credit course given throughout the year

Full-year courses (two credits) carry a numerical designation only. They must be carried through two semesters. In some cases, students may take one semester of such a course for credit, but only with permission of the chairperson of the department concerned.

The following designations refer to the distribution system for courses:

SO: fulfills a Social Science requirement
NA: fulfills a Natural Science requirement
HU: fulfills a Humanities requirement
QU: fulfills the Quantitative requirement

DEPARTMENT DESCRIPTIONS AND COURSE LISTINGS

AFRICANA STUDIES (BI-CO)

haverford.edu/africanastudies

African and Africana Studies is a developing synthetic field that brings a global frame of reference and a variety of disciplinary perspectives to the study of Africa and the African Diaspora. Drawing on anthropology, economics, history, linguistics, literature, music, philosophy, political science, and sociology, the field reflects processes of emancipation, decolonization, and development—against a background of international economic change—in Africa itself and in societies worldwide with populations of African origin.

African and Africana Studies is a Bi-College program, offered as a minor at Bryn Mawr or as an area of concentration at Haverford.

CURRICULUM

The foundation course for African studies as well as for the African and Africana Studies program at Haverford and Bryn Mawr is Independent College Programs 101a, "Introduction to African and Africana Studies"/History 102a "Introduction to Africana Civilizations," which:

- is suitable for first-year students
- enrolls undergraduates from all four institutions
- utilizes on-site resources of the four campuses
- provides a foundation and a frame of reference for advanced work
- is co-taught each year by two instructors from different disciplines.

We advise students to enter the African and Africana Studies program by taking this course as early as possible and to complete it by the end of the junior year.

AFRICAN AND AFRICANA STUDIES REQUIREMENTS

1. Independent College Programs 101a, "Introduction to African and Africana Studies"/ History 102a, "Introduction to Africana Civilizations"
2. Five more courses from the list reproduced in the college catalogs, or from a list of new courses periodically approved. (At least one of these courses must deal with the African Diaspora.)
3. A senior thesis or seminar-length essay in an area of African and Africana Studies.

We encourage students to include in their program courses beyond the introductory level that deal with continental Africa and the African Diaspora. Upon graduation, student transcripts reflect successful completion of the African and Africana Studies minor/concentration.

A student majoring in a department that requires a thesis satisfy the requirement by writing on a topic that his or her department and the coordinator(s) of the African and Africana Studies program have approved. If the major department does not require a thesis, an equivalent written exercise that is a seminar-length essay is required. Students may write the essay within the framework of a particular course or as an independent study project. The student must have the topic approved by the instructor in question and by the coordinator(s) of the African and Africana Studies program.

In addition to these requirements, students concentrating in African and Africana Studies at Haverford must also satisfy a distribution requirement. Of the six courses they take, they must take at least two, but no more than three, in their home department; they must take the remaining three to four courses in at least two other departments.

AFRICAN STUDIES REQUIREMENTS

A full African studies program includes:
- the introductory foundation course
- study of an African language (or languages)
- study abroad at an African university
- advanced course-work on Africa at any of the four institutions.

African language courses are regularly offered at the University of Pennsylvania (Yoruba, Hausa, Amharic, Wolof, Swahili) and Bryn Mawr (Introductory Swahili).
Haverford and Bryn Mawr regularly sponsor

public talks about African issues, featuring visiting African scholars from several disciplines.

COORDINATORS

At Haverford:
Susanna Wing
Chair and Associate Professor of Political Science

At Bryn Mawr:
Kalala Ngalamulume
Associate Professor of History

COURSES AT HAVERFORD

FALL

RELG H256 ZEN THOUGHT, ZEN CULTURE, ZEN HISTORY

SPRING

ANTH H155 THEMES IN THE ANTHROPOLOGY OF RELIGION

ENGL H265 AFRICAN AMERICAN LITERATURE: SATIRE IN THE BLACK TRADITION

ENGL H363 TOPICS IN AMERICAN LITERATURE

MUSC H227 JAZZ AND THE POLITICS OF CULTURE

RELG H132 VARIETIES OF AFRICAN AMERICAN RELIGIOUS EXPERIENCE

COURSES AT BRYN MAWR

FALL

ARCH B101 INTRODUCTION TO EGYPTIAN AND NEAR EAST ARCHICTECTURE

CITY B237 THEMES IN MODERN AFRICAN HISTORY

CITY B269 BLACK AMERICA IN SOCIOLOGICAL PERSPECTIVE (CROSS-LISTED IN SOCIOLOGY)

ENGL B262 AFRICAN AMERICAN LITERATURE

GNST B103 INTRODUCTION TO SWAHILI LANGUAGE AND CULTURE

HIST B102 INTRODUCTION TO AFRICAN CIVILIZATIONS

HIST B237 THEMES IN MODERN AFRICAN HISTORY: AFRICAN CITIES IN HISTORICAL PERSPECTIVES

HIST B336 TOPICS IN AFRICAN HISTORY: HISTORY OF DISEASE AND MEDICINE IN AFRICA

SOCL B229 BLACK AMERICA IN SOCIOLOGICAL PERSPECTIVE (CROSS-LISTED IN GROWTH AND STRUCTURE OF CITIES)

SPRING

ANTH B200 THE ATLANTIC WORLD, 1492–1800 (CROSS-LISTED IN HISTORY)

ARCH B230 ARCHITECTURE AND HISTORY OF ANCIENT EGYPT

CITY B266 SCHOOLS IN AMERICAN CITIES

COML B388 CONTEMPORARY AFRICAN FICTION

EDUC B200 CRITICAL ISSUES IN EDUCATION

EDUC B260 MULTICULTURAL EDUCATION

EDUCB266 SCHOOLS IN AMERICAN CITIES

ENGL B234 POSTCOLONIAL LIT IN ENGLISH

ENGL B264 BLACK BARDS (POETRY)

ENGL B362 AFRICAN AMERICAN LITERATURE

ENGL B388 CONTEMPORARY AFRICAN FICTION

GNST B105 INTRODUCTION TO SWAHILI LANGUAGE AND CULTURE II

HIST B200 THE ATLANTIC WORLD, 1492–1800 (CROSS-LISTED IN ANTHROPOLOGY)

HIST B236 AFRICAN HISTORY SINCE 1800-AFRICA SINCE 1800

HIST B337 TOPICS IN AFRICAN HISTORY: WITCHCRAFT IDEOLOGY

POLS B243 AFRICAN AND CARIBBEAN PERSPECTIVES IN WORLD POLITICS

SOCLB266 SCHOOLS IN AMERICAN CITIES

ANTHROPOLOGY

haverford.edu/anthropology

Anthropology is the holistic and comparative study of human beings from a variety of perspectives—historical, linguistic, biological, social, and cultural—in pursuit of a deeper understanding of humankind and the promotion of informed social policy. Anthropologists:

- conduct "participant-observation" ethnographic research with diverse social groups in different parts of the world, examining how people imagine and structure their lives and aspirations.
- study social life and organization, modes of subsistence, exchange practices, the family, politics and power, ritual and religion, gender, and all forms of expressive culture.
- study social, economic, cultural, and political systems—how these systems are inhabited, contested, changed and reproduced over time.
- pay particular attention to the relationships between local contexts and broader global social, geographic and historical regimes and ideas.
- aim to address through ethnographic and documentary research the most pressing issues of our times, especially with reference to the effects of globalization, the challenges of social and ethnic diversity, and the pursuit of social justice in the domains of health, the environment, and human rights.

At Haverford we teach socio-cultural anthropology, which has three central traits:

- It is comparative: we compare social and cultural phenomena in one place to those in another and in relation to general theories about humans and human societies. This comparative method allows us to tease out what is unique and distinctive about the subject we are studying and what more generally tends to be true.
- It is holistic. We study practices and institutions as they are embedded in context.
- It involves participant-observation fieldwork. Social and cultural anthropologists live in the communities they are studying for extended periods of time, to build a perspective that integrates an insider's and an outsider's points of view.

Anthropologists have long studied both Western and non-Western civilizations, including people and social institutions re-imagining modernity in Africa, Asia, and Latin America, paying particular attention to the value and diversity of the full human cultural record as well as to the contemporary predicaments of marginalized peoples. Ethnographers work on small-scale communities as well as processes of globalization. Over the last three decades scholars in anthropology have begun to focus their work also on powerful metropolitan and cosmopolitan social actors, both in the United States and globally. As ethnographers study the work of businessmen, planners, state officials, doctors, artists, and professionals in transnational institutions such as Wall Street and the World Bank, the discipline has made key contributions in critical debates about globalization, financial reform, public health, education, environment, and urbanization, and our curriculum is fully engaged with these areas of research and study.

The anthropology major teaches students the methods of social and cultural research and analysis and introduces them to the history of anthropology. Students are encouraged to think critically and self-reflectively about several areas of intellectual inquiry, including:

1. The discipline of anthropology:

- To understand the unique contribution that anthropology makes to the study of the social, and addresses the most pressing issues of our times
- To learn how to situate strange and familiar social practices and cultural categories in shifting and con¬tingent historical, economic, and political formations and structures
- To recognize the impact of the position of the scholar in the production of knowl¬edge
- To know the key figures in anthropology and their specific theoretical, methodological, and empirical contributions to the history and development of the discipline
- To understand key contemporary debates

in the field and how older notions of race, culture, nation, and language have shaped recent theoretical innovations
- To be familiar with the subfields of the discipline (e.g., political and legal anthropology, medical anthropology, the anthropology of religion, environmental anthropology, etc.) and their contributions to knowledge.

2. The craft and theory of anthropological research:
- To have first-hand experience of data-collection methods, including ethno¬graphic field research, interviewing, and archival research
- To understand the ethical obligations of an ethno¬graphic researcher and to be able to engage others with respect and compassion
- To be versed in the ethnographic record of more than one society; to develop a capacity to think comparatively across cultures; to problematize and analyze familiar practice and "common sense" in a new light
- To understand the relationship between theory and empirical data, i.e.,
  - o how specific anthropologists have used theory to interpret and explain social and cultural formations, and
  - o how particular ethnographic situations and circumstances have allowed or required specific anthropologists to revise, critique, and improve theo¬retical models
- To understand ethnography as a methodology and a genre of writing

3. The basic skills of anthropological writing and communicating anthropological knowledge:
- To be able to write a critical essay, a fieldnote, an academic book review, and a review of the literature for a topic of anthropological interest
- To understand the difference between a scholarly argument that proves a particular point (interpretive, explanatory), and an argument that advocates an attitude or action
- To be able to construct a sound argument supported by evidence and to be able to engage in scholarly debate
- To understand the diverse media and forums through which anthropological knowledge is communicated to the public.

CURRICULUM

Students may take archaeology or physical/biological anthropology courses at Bryn Mawr College. We expect students to familiarize themselves with the use of e-mail, Blackboard, Tripod, and the storage server.

MAJOR REQUIREMENTS

Students are required to take a total of 11 courses in the major, including six required courses within the department. Individual programs require the advisor's approval.
- ANTH 103a, Introduction to Anthropology, preferably in the first or second year.
- ANTH 303a or b, "History and Theory of Anthropology," before the senior year.
- One course focused on an ethnographic area, such as ANTH 241, "Mediterranean"; ANTH 245, "Africa"; ANTH 244, "China"; or a similar course at Haverford or on another campus.
- One other 200-level course in this department.
- One other 300-level course in this department, before the senior year.
- A two-credit, intensive Senior Thesis Seminar, during the fall and spring semesters of the senior year (ANTH 450/451).

For the final thesis project, the anthropology major:
- defines a research question
- situates that question within a broader field of anthropological and scholarly inquiry
- conducts research with primary source materials (ethnographic, archival, and/or material)
- develops an original argument about the primary source materials that is informed by the relevant theory and anthropological literature.

All major programs require the approval of the major advisor. Students may count no more than one biological anthropology or archaeology course for the Haverford major. Students must take the remaining courses in the Haverford Anthropology department, in an anthropology department within the Tri-Co or at Penn. Taking courses to count toward the major outside of Haverford's Anthropology department, outside of the discipline, or while studying abroad requires approval of the student's advisor.

Students may count no more than two courses outside of the discipline towards the major, and these courses must relate to the student's specific interests.

MINOR REQUIREMENTS

The minor in anthropology consists of six courses, including:

- ANTH 103a, "Introduction to Anthropology";
- ANTH 303, "History and Theory of Anthropology";
- an ethnographic area course; and
- three other courses at the 200 or 300 level, including one course at the 300 level.

Minors must take a minimum of three courses in the Haverford department. All minor programs require approval of the minor advisor.

HONORS REQUIREMENTS

The faculty in the department of Anthropology decides honors based upon overall excellence in the major:

- outstanding work in the senior thesis (final written work and oral presentation)
- strong cumulative performance in all anthropological coursework (typically a grade point average of 3.7 or higher)
- a record of consistent intellectual commitment and participation in the department.

Faculty awards high honors upon occasion, for exceptional contributions in all three areas.

FACULTY

Jesse Weaver Shipley
Chair and Associate Professor

Laurie Kain Hart
Stinnes Professor of Global Studies

Zolani Ngwane
Associate Professor

AFFILIATED FACULTY AT BRYN MAWR COLLEGE:

Gary McDonogh
Professor of Growth and Structure of Cities

Faculty of the Bryn Mawr Department of Anthropology: brynmawr.edu/anthropology/faculty.html

COURSES

103 INTRODUCTION TO ANTHROPOLOGY

Zainab Saleh, Jesse Shipley

An introduction to the basic ideas and methods of social anthropology. Examines major theoretical and ethnographic concerns of the discipline from its origins to the present, such as family and kinship, production and reproduction, history and evolution, symbolism and representation, with particular attention to such issues as race and racism, gender and sexuality, class, and ethnicity.

155 THEMES IN THE ANTHROPOLIGY OF RELIGION

Zolani Noonan-Ngwane

What is it that rituals actually do? Are they enactments (affirmations) of collective ideals or are they arguments about these? Are they media for political action or are they expressions of teleological phenomena? The course is a comparative study of ritual and its place in religious practice and political argumentation. Concrete case studies will include an initiation ritual in South Africa, the Communion Sacrament in Christianity, a Holocaust commemorative site in Auschwitz, and the cult of spirit-possession in Niger. Enrollment limited to 20. Preference to Freshmen and Sophomores.

200 ANTHROPOLOGY OF HIV & AIDS

Christopher Roebuck

This course provides a theoretical foundation for cultural analyses and responses to HIV & AIDS. Topics include the history of HIV & AIDS and their epidemiological trends; medical and public health responses in various (inter)national settings; structural factors shaping vulnerability and access to prevention and treatment; local and global AIDS activisms; social stigma, discrimination, and criminalization; discourses of human rights, humanitarianism, and citizenship; and representations of risk, sickness, and care.

203 IMAGINING THE ARCTIC

Joshua Moses

Circumpolar regions have been imagined as vast, remote, wild, and pristine regions of the planet. More recently, with images of polar bears sinking on sea ice, the Arctic has been depicted as vulnerable, imperiled by climate change and environmental destruction. Focusing on ethnography, this course examines how scholars have engaged critical issues facing

the contemporary Arctic. Themes include local/global interactions, indigenous politics, resource extraction, human/animal relations, self-governance and cultural politics. Readings include, Franz Boas, Jean Briggs, Eleanor Leacock, George Wenzel, Hugh Brody, Julie Cruikshank , Kirk Dombrowski, and Lisa Stevenson.

207 VISUAL ANTHROPOLGY

Jesse Shipley

This course looks at anthropology's relationship to the visual, focusing particularly on ethnographic film. How have anthropologists used visual media and ethnographic film to represent culture and produce knowledge? Students study visual anthropology as a field and also practice as visual anthropologists by making two short ethnographic films in groups.

223 OLD AGE IN THE MODERN AGE

Terry Snyder

This course provides a survey on the history of aging in the United States from the 17th through the 20th century. The class examines broad consideration of aging through lenses of historical, community, and care perspectives. It begins with introductory context of age inventions regarding childhood, adolescence, and middle age/mid-life. We look at shifting theories and attitudes on age. We examine issues of demographics and poverty among the elderly, as well as health care and social assistance programs. Further investigation on the impact or roles of race, ethnicity, and religion are considered. We explore the influence of industrialization, retirement, and experience in shaping ideas of age and the lived experience. Finally, we examine these ideas on aging through a close reading of historical case studies of past and current Philadelphia CCRC's (Continuing Care and Retirement Communities).

245 AFRICAN CULTURE, POWER, AND IDENTITY

Zolani Noonan-Ngwane

This course is a historical overview of some classic and contemporary ethnographic studies of Africa. The course focuses on the contribution of social anthropology to our understanding of the history and socio-cultural identities and practices of the people of Africa.

247 ANTHROPOLOGY AND LITERATURE: ETHNOGRAPHY OF BLACK SOUTH AFRICAN WRITING, 1888–2008

Zolani Noonan-Ngwane

Through analysis of the development of writing in colonial and apartheid South Africa this course examines the "crisis of representation" of the past two decades in literature and anthropology. We consider debates about the textual status of ehtnographic monographs and the more general problems of writing and social power. Specifically, we look at how such writing contributed to the construction and transformation of black subjectivity. Course material includes 19th- and 20th-century texts by black South Africans including life narratives, particularly collaborated autobiographies by women in the 1980s.

253 ANTHROPOLOGY OF THE MIDDLE EAST

Zainab Saleh

This course surveys anthropological approaches to the Middle East and North Africa, with a focus on themes of representation. In addition, we explore questions of gender, religion, nation-state, colonialism, tribes, subject formation, and sexuality. We examine a range of critical methodologies applying them to a variety of ethnographic sources that anthropologists have been using in their studies, namely archives, fieldwork, poetry, memorials, science, and technology.

260 HEALTH AND HEALING

Christopher Roebuck

Are our bodies, ourselves lively artifacts? How do social, cultural, and political forces shape health, illness, and survival as well as understandings and experiences of "the body"? This introductory course in medical anthropology approaches these questions by examining ethnographic studies and cross-comparative analyses. Topics include diverse concepts of disease etiology and healing practice; theories of embodiment and somatization; ethnomedicine, medical pluralism, and (bio)medicalization; structural violence, inequalities, and social suffering; political and moral economies of global health and medical humanitarianism; HIV/AIDS and other infectious diseases; and effects of new medical technologies on how "we" live and die.

261 MEMORY, HISTORY, ANTHROPOLOGY

Zainab Saleh

281 NATURE/CULTURE: AN INTRODUCTION TO ENVIRONMENTAL ANTHROPOLOGY

Joshua Moses

This course introduces students to the emerging field of environmental anthropology that focuses on the interrelationship between human cultures and natural environments. Environmental anthropology studies the various ways in which our biological survival and our social structures are influenced by environmental factors around us, while at the same time analyzing how our actions shape these environmental factors in turn. The course engages with some of the key themes of the major sub-disciplines of environmental anthropology, viz. ecological anthropology, ethnoecology, political ecology, environmental justice, and sustainability studies. Topics covered include human adaptation, traditional environmental knowledge, food justice, race/class, and access to safe environment, etc.

301 ANTHROPOLOGY OF TRICKSTERS

Jesse Shipley

This course traces the character of the trickster as important to the development of 20th-century anthropology and social theory. The trickster figure in anthropology, folklore, and religious studies has been used to examine how a society understands itself. The identification of the category of the trickster and attempt to fit various apparently transgressive characters and social phenomena into it speaks both to the history of anthropology as well as to fundamental ontological and epistemological questions about rationality, duality, temporality, and meaning raised in ethnographic inquiry. Fulfills ACNC concentration requirement. Pre-requisite(s): Introduction to Anthropology or equivalent, at least one 200 level or higher class with social theory content. Enrollment Limit: 15. This is an advanced seminar meant for anthropology majors or students with advanced social theory course work in history, literature, art history, philosophy, sociology.

303 HISTORY AND THEORY OF ANTHROPOLOGY

Christopher Roebuck

The development of anthropological thought. Theories of society and the human subject, social organization and social structure, and the culture concept. Structuralism, Marxist anthropology, the crisis of representation in the 1980s and 1990s, postmodernism, the relationship between ethnography and history, and practice theory.

316 GENDER AND SEXUALITY IN THE MIDDLE EAST

Zainab Saleh

The purpose of this course is to provide a critical and nuanced understanding of issues related to questions of gender and sexuality in the Muslim Middle East. The course approaches Islam historically and contextually by focusing on various issues, such as veiling, modernity, colonialism, feminism, Islamism, reform, sexuality, and nationalism. Some of the authors assigned are Leila Ahmed, Lara Deeb, Afsaneh Najmabadi, and Beth Baron.

322 ETHNOGRAPHIC METHODS

Joshua Moses

The course provides training in qualitative research methods, with a focus on participant-observation. It engages with theoretical debates, ethical questions, and practical issues concerning the craft of ethnographic field work. Students conduct several small-scale field exercises and design and implement a larger ethnographic project.

330 RACE, CLASS, AND PUBLIC ANTHROPOLOGY IN THE U.S.

Patricia Kelly

This course examines poverty, work, whiteness, race, and migration in the wake of three decades of neoliberal economic policies in the U.S., and how anthropologists do work in the public interest on these topics. Students learn themes in the literature, theoretical scaffolding, and research methods of applied, public, and activist anthropology in relation to US-based ethnography. The course includes field research in Fishtown (Philadelphia).

351 WRITING AND SOCIAL CONSTRUCTION OF SUBJECTIVITY

Zolani Noonan-Ngwane

This course is an interdisciplinary exploration of writing as a social institution, personal ritual, cultural artifact, and a technology. Beginning with some debates in the social sciences concerning the place of literacy in individual cognitive development and social progress, we proceed to explore some core assumptions about speech and writing in western thought from Plato to recent French feminist theory. The goal of this course is to offer students a genealogical account of anthropological ways of thinking about the human being as a creative agent and a social subject.

355 ANTHROPOLOGY AND THE NEW FACES OF MODERNITY

Zolani Noonan-Ngwane

An examination of recent trends in reflection on modernity in the human and social sciences. This course addresses questions about social subjectivity, globalization, and the endurance of modernity through a number of ethnographic snapshots from different parts of the world.

450 SENIOR SEMINAR: RESEARCH AND WRITING

Jesse Shipley

The fall semester of the two-semester senior thesis seminar. Students do archival and ethnographic research, write a research prospectus, get training on ethics, and write a review of the anthropological literature on their area of inquiry.

451 SENIOR SEMINAR: SUPERVISED RESEARCH AND WRITING

Jesse Shipley, Zolani Noonan-Ngwane, Zainab Saleh, Joshua Moses, Christopher Roebuck

The spring semester of the two-semester senior thesis seminar. Students complete research on their thesis and write an ethnography. Most of the semester is individual meetings between thesis writers and advisors. The spring senior thesis seminar includes a public thesis presentation and an oral exam.

ARABIC

Arabic language instruction is offered through Tri-College cooperation. Courses are available at Bryn Mawr (Intermediate), Haverford (Elementary), and Swarthmore Colleges (Advanced). The teaching of Arabic is a component of the three colleges' efforts to increase the presence of the Middle East in their curricula. Bryn Mawr offers courses on the Middle East in the departments of Anthropology, Classical and Near Eastern Archaeology, Comparative Literature, General Studies, History, History of Art, and Political Science. Additionally, students can have a concentration in Middle Eastern Studies.

FACULTY

AT BRYN MAWR:

Penny Armstrong
Chair and Eunice M. Schenck 1907 Professor of French and Director of Middle Eastern Languages

Manar Darwish
Instructor of Arabic and Coordinator of Bi-Co Arabic Program

AT SWARTHMORE:

Aman Attieh, Assistant Professor

Brahim El Guabli, Lecturer

Walid Hamarneh, Assistant Professor

Farnaz Perry, Lecturer

Marina Rojavin, Lecturer

COURSES

ARAB H001A INTRODUCTION TO MODERN STANDARD ARABIC
M. Darwish
Three additional hours of drill required as follows: Mon/Weds/Fri 8:30–9:30 a.m. at Haverford or Mon/Wed/Fri 10:00–11:00 a.m. at BMC.

ARAB H002B INTRODUCTION TO MODERN STANDARD ARABIC
M. Darwish
Three additional hours of drill required as follows: Mon/Wed/Fri 8:30–9:30 a.m. at Haverford or Mon/Wed/Fri 10:00–11:00 a.m. at BMC.

ARAB B003 SECOND-YEAR MODERN STANDARD ARABIC
M. Darwish
Combines intensive oral practice with writing and reading in the modern language. The course attempts to increase students' expressive ability through the introduction of more advanced grammatical patterns and idiomatic expressions. Introduces students to authentic written texts and examples of Arabic expression through several media.

ARAB B004 SECOND-YEAR MODERN STANDARD ARABIC
Combines intensive oral practice with writing and reading in the modern language. The course attempts to increase students' expressive ability through the introduction of more advanced grammatical patterns and idiomatic expressions. Introduces students to authentic written texts and examples of
Arabic expression through several media.

ARAB B403 INDEPENDENT STUDY
(Not Offered 2014-2015)

ARTS PROGRAM AT BRYN MAWR COLLEGE

Courses in the arts prepare students who might wish to pursue advanced training in their fields and are also for those who want to broaden their academic studies with work in the arts that they would like to conduct at a serious and disciplined level. We offer courses at introductory as well as advanced levels.

Students may complete a minor in creative writing, dance, or theater, and qualified students may submit an application to major in creative writing, dance or theater through the independent major program. Students may complete a major in fine arts or a major or minor in music at Haverford College. English majors may complete a concentration in creative writing.

ARTS IN EDUCATION

The Arts Program offers a Praxis II course for students who have substantial experience in an art form and are interested in extending that experience into teaching and learning at educational and community sites.

ARTA B251 ARTS TEACHING IN EDUCATIONAL AND COMMUNITY SETTINGS

This is a Praxis II course intended for students who have substantial experience in an art form and are interested in extending that experience into teaching and learning at educational and community sites. Following an overview of the history of the arts in education, the course investigates underlying theories. The praxis component allows students to create a fluid relationship between theory and practice through observing, teaching, and reflecting on arts practices in education contexts. School or community placement 4–6 hours a week. Prerequisite: At least an intermediate level of experience in an art form. This course counts toward the minor in dance or in theater. Counts towards the Praxis Program. Crosslisted as EDUC-B251. (Not offered 2014–2015.)

CREATIVE WRITING

Courses in Creative Writing within the Arts program are designed for students who wish to develop their skills and appreciation of creative writing in a variety of genres (poetry, prose fiction and nonfiction, playwriting, screenwriting, etc.) and for those intending to pursue studies in creative writing at the graduate level. Any English major may include one creative writing course in the major plan. Students may pursue a minor as described below. While there is no existing major in creative writing, exceptionally well-qualified students with a GPA of 3.7 or higher in creative writing courses completed in the Tri-College curriculum may consider submitting an application to major in creative writing through the Independent Major Program after meeting with the Creative Writing program director. When approved, students may pursue the independent major in creative writing as a double major with another academic major subject.

CREATIVE WRITING MINOR REQUIREMENTS

Requirements for the minor in creative writing are six units of course work, generally including three beginning/intermediate courses in at least three different genres of creative writing (chosen from ARTW 159, 231, 236, 240, 251, 260, 261, 262, 263, 264, 265, 266, 268, 269) and three electives, including at least one course at the 300 level (ARTW 360, 361, 362, 364, 366, 367, 371, 373, 382), allowing for advanced work in one or more genres of creative writing which are of particular interest to the student. The objective of the minor in Creative Writing is to provide both depth and range, through exposure to several genres of creative writing. Students should consult with the Creative Writing Program director by the end of their sophomore year to submit a plan for the minor in order to ensure admission to the appropriate range of courses.

CONCENTRATION IN CREATIVE WRITING

English majors may elect a three-course concentration in Creative Writing as part of the English major program. Students interested in the concentration must meet with the Creative Writing program director by the end of their sophomore year to submit a plan for the concentration and must also confirm the concentration with the chair of the English department.

CREATIVE WRITING FACULTY

Linda Caruso Haviland,
Alice Carter Dickerman Director of the Arts Program and Director and Associate Professor of Dance

Dilruba Ahmed, Lecturer

Madeline R. Cantor, Associate Director and Term Professor of Dance (on leave fall 2014)

Nancy Doyne, Instructor

Nomi Eve, Lecturer

Thomas Ferrick, Lecturer

Dipika Guha, Lecturer

Cordelia Jensen, Lecturer

Karl Kirchwey, Professor of Creative Writing (on leave 2014–15)

Mark E. Lord, Professor of the Arts on the Theresa Helburn Chair of Drama and Director of the Theater Program (on leave spring 2015)

Cyndi Reeves, Lecturer

David Romberg, Lecturer

Marco Roth, Instructor

J. C. Todd, Lecturer

Daniel P. Torday, Director of Creative Writing

Laura Vriend, Instructor

CREATIVE WRITING COURSES

ARTW B159 INTRODUCTION TO CREATIVE WRITING

This course is for students who wish to experiment with three genres of creative writing: short fiction, poetry and drama, and techniques specific to each of them. Priority will be given to interested first- and second-year students; additional spaces will be made available to upper-year students with little or no experience in creative writing. Students will write or revise work every week; roughly four weeks each will be devoted to short fiction, poetry, and drama. There will be individual conferences with the instructor to discuss their progress and interests. Half of class time will be spent discussing student work and half will be spent discussing syllabus readings.

ARTW B240 LITERARY TRANSLATION WORKSHOP

Open to creative writing students and students of literature, the syllabus includes some theoretical readings, but the emphasis is practical and analytical. Syllabus reading includes parallel translations of certain enduring literary texts (mostly poetry) as well as books and essays about the art of translation. Literary translation will be considered as a spectrum ranging from Dryden's "metaphrase" (word-for-word translation) all the way through imitation, adaptation, and reimagining. Each student will be invited to work with whatever non-English language(s) s/he has, and to select for translation short works of poetry, prose, or drama. The course will include class visits by working literary translators. The Italian verbs for "to translate" and "to betray" sound almost alike; throughout, the course concerns the impossibility and importance of literary translation. Crosslisted as COML-B240. (Not Offered 2014–2015)

ARTW B260 WRITING SHORT FICTION I

N. Eve, C. Reeves

An introduction to fiction writing, focusing on the short story. Students will consider fundamental elements of fiction and the relationship of narrative structure, style, and content, exploring these elements in their own work and in the assigned readings in order to develop an understanding of the range of possibilities open to the fiction writer. Weekly readings and writing exercises encourage students to explore the material and styles that most interest them, and to push their fiction to a new

level of craft, so that over the semester their writing becomes clearer, more controlled, and more absorbing.

ARTW B261 WRITING POETRY I

In this course students will learn to "read like a writer," while grappling with the work of accomplished poets, and providing substantive commentary on peers' work. Through diverse readings, students will examine craft strategies at work in both formal and free verse poems, such as diction, metaphor, imagery, lineation, metrical patterns, irony, and syntax. The course will cover shaping forms (such as elegy and pastoral) as well as given forms, such as the sonnet, ghazal, villanelle, etc. Students will discuss strategies for conveying the literal meaning of a poem (e.g., through sensory description and clear, compelling language) and the concealed meaning of a text (e.g., through metaphor, imagery, meter, irony, and shifts in diction and syntax). By the end of the course, students will have generated new material, shaped and revised draft poems, and significantly grown as writers by experimenting with various aspects of craft.

ARTW B262 PLAYWRITING I

D. Guha

An introduction to playwriting through a combination of reading assignments, writing exercises, discussions about craft, and ultimately the creation of a complete one-act play. Students will work to discover and develop their own unique voices as they learn the technical aspects of the craft of playwriting. Short writing assignments will complement each reading assignment. The final assignment will be to write an original one-act play. Crosslisted as ARTT-B262

ARTW B263 WRITING MEMOIR I

M. Roth

This course provides students with practical experience in writing about the events, places, and people of their own lives in the form of memoir. Emphasis will be placed on open-ended investigation into what we think we know (about ourselves and others) and how we think we came to know it. In addition to writing memoir of their own, and workshop discussions, students will also read and discuss works by writers such as Montaigne, Hazlitt, Freud, J.R. Ackerley, Georges Perec, and more contemporary writing by writers such as Akeel Bilgrami, Elif Batuman, Emily Witt, and Lawrence Jackson. Although there will be little mention of the master narratives of American memoir—Christian redemption, confession, captivity, and slavery—the class will consistently struggle to come to terms with their foundational legacy in American life and letters.

ARTW B264 NEWS AND FEATURE WRITING

Ton Ferrick

Students in this class will learn how to develop, report, write, edit and revise a variety of news stories, beginning with the basics of reporting and writing the news and advancing to longer-form stories, including personality profiles, news features, and trend stories, and concluding with point-of-view journalism (columns, criticism, reported essays). The course will focus heavily on work published in The Philadelphia Inquirer and The New York Times. Several working journalists will participate as guest speakers to explain their craft. Students will write stories that will be posted on the class blog, the English House Gazette.

ARTW B265 CREATIVE NONFICTION

This course will explore the literary expressions of nonfiction writing by focusing on the skills, process, and craft techniques necessary to the generation and revision of literary nonfiction. Using the information-gathering tools of a journalist, the analytical tools of an essayist, and the technical tools of a fiction writer, students will produce pieces that incorporate both factual information and first-person experience. Readings will include a broad group of writers ranging from E.B. White to Anne Carson, George Orwell to David Foster Wallace, and Joan Didion to James Baldwin, among many others. (Not Offered 2014–2015.)

ARTW B266 SCREENWRITING

N. Doyne

An introduction to screenwriting. Students address and analyze issues basic to the art of storytelling in film: character, dramatic structure, theme, setting, image, and sound. The course focuses on the film adaptation; readings include novels, screenplays, and short stories. Films adapted from the readings will be screened. In the course of the semester, students will be expected to outline and complete the first act of an adapted screenplay of their own.

ARTW B268 WRITING LITERARY JOURNALISM
This course will examine the tools that literary writers bring to factual reporting and how these tools enhance the stories they tell. Readings will include reportage, polemical writing, and literary reviewing. The issues of point-of-view and subjectivity, the uses of irony, forms of persuasion, clarity of expression and logic of construction will be discussed. The importance of context—the role of the editor and the magazine, the expectations of the audience, censorship, and self-censorship—will be considered. (Not Offered 2014–2015)

ARTW B269 WRITING FOR CHILDREN
C. Jensen
In this course, students have the opportunity to hone the craft of writing for children and young adults. Through reading, in-class discussion, peer review of student work, and private conferences with the instructor, we will examine the specific requirements of the picture book, the middle-grade novel, and the young adult novel. This analytical study of classic and contemporary literature will inspire and inform students' creative work in all aspects of storytelling, including character development, plotting, world building, voice, tone, and the roles of illustration and page composition in story narration.

ARTW B360 WRITING SHORT FICTION II
D. Torday
An exploration of approaches to writing short fiction designed to strengthen skills of experienced student writers as practitioners and critics. Requires writing at least five pages each week, workshopping student pieces, and reading texts ranging from realist stories to metafictional experiments and one-page stories to the short novella, to explore how writers can work within tight confines. Suggested Preparation: ARTW B260 or work demonstrating equivalent expertise in writing short fiction. Students without the ARTW B260, must submit a writing sample of 10–15 pages in length (prose fiction) to the Creative Writing Program during the preregistration period to be considered for this course.

ARTW B361 WRITING POETRY II
K. Kirchwey
This course assumes that reading and writing are inextricably linked, and that the only way to write intelligent and interesting poetry is to read as much of it as possible. Writing assignments will be closely connected to syllabus reading, including an anthology prepared by the instructor, and may include working in forms such as ekphrastic poems (i.e., poems about works of visual art or sculpture), dramatic monologues, prose poems, translations, imitations and parodies. Suggested Preparation: ARTW B261 or work demonstrating equivalent familiarity with the basic forms of poetry in English. Students without ARTW B261 must submit a writing sample of 5–7 poems to the instructor to be considered for this course. A course packet will be required for this course; cost to not exceed $30.00.

ARTW B364 LONGER FICTIONAL FORMS
D. Torday
An advanced workshop for students with a strong background in fiction writing who want to write longer works: the long short story, novella and novel. Students will write intensively, and complete a long story, novel, or novella (or combination thereof) totaling up to 20,000 words. Students will examine the craft of their work and of published prose. Suggested Preparation: ARTW B260 or proof of interest and ability. Students without ARTW B260 must submit a writing sample of 10–15 pages in length (prose fiction) to the Creative Writing Program during the preregistration period to be considered for this course.

ARTW B365 CREATIVE NONFICTION II
D. Torday
An exploration of approaches to writing personal essays and lyric essays designed to strengthen skills of experienced student essayists as practitioners and critics. Requires writing at least five pages each week, workshopping student essays, and reading texts ranging from long personal essays to book-length essays, to explore how writers can work within the broader parameters of the long essay. Suggested Preparation: ARTW B265 or work demonstrating equivalent expertise in writing personal and lyric essays. Students without the ARTW B265, must submit a writing sample of 10-15 pages in length (nonfiction prose) to the Creative Writing Program during the preregistration period to be considered for this course.

ARTW B403 SUPERVISED WORK
Students who have had a Creative Writing Major approved through the Independent Major Program will work with a member of the Creative Writing Program faculty on a semester-long 403 (Independent Study) as a final project their senior year. Highly qualified Creative Writing minors and concentrators may petition the program to complete an independent study, subject to the availability of faculty to supervise such projects.

ARTW B425 PRAXIS III: INDEPENDENT STUDY
Praxis III courses are Independent Study courses that individual students develop in collaboration with faculty and field supervisors. A Praxis courses is distinguished by genuine collaboration with fieldsite organizations and by a dynamic process of reflection that incorporates lessons learned in the field into the classroom setting and applies theoretical understanding gained through classroom study to work done in the broader community. (Not Offered 2014–2015)

DANCE

Dance is not only an art and an area of creative impulse and action; it is also a significant and enduring human behavior that can serve as a core of creative and scholarly inquiry within the liberal arts. The Program offers full semester courses in progressive levels of ballet, modern, and jazz, as well as a full range of technique courses in diverse genres and various traditions. Several performance opportunities are available to students ranging from our Dance Outreach Project, which travels to schools throughout the Philadelphia region, to our Spring Concert in which students work with professional choreographers or reconstructors and perform in our main stage theater. We also offer lecture/seminar courses designed to introduce students to dance as a vital area of academic inquiry. These include courses that examine dance within western practices as well as courses that extend or locate themselves beyond those social or theatrical traditions.

Students can take single courses in dance, can minor in dance, or submit an application to major through the independent major program. The core academic curriculum for the dance minor or independent major in dance includes intermediate or advanced technique courses, performance ensembles, dance composition, independent work, and courses in dance research or analysis.

DANCE MINOR REQUIREMENTS

Requirements for the dance minor are six units of coursework: three required (ARTD 140, 142, and one .5 credit course which may be selected from among the following technique courses: 136-139, 230-232, and one .5 credit course which may be a technique course or selected from among the following performance ensembles:345-350); three approved electives; and requisite attendance at a prescribed number of performances/events. With the advisor's approval, one elective in the minor may be selected from allied Tri-College departments

REQUIREMENTS FOR INDEPENDENT MAJOR IN DANCE

The independent major requires eleven courses, drawn primarily from our core academic curriculum and including: ARTD 140 and one additional dance lecture/seminar course; ARTD 142; one 0.5 technique course at the intermediate or advanced level each semester after declaring the major. Participation in a performance ensemble is highly recommended. The major also requires attendance at a prescribed number of performances/events, demonstration of basic writing competency in dance, and a senior capstone experience. With the advisor's approval, two electives in the major may be selected from allied Tri-College departments. In both the minor and the major, students may choose to emphasize one aspect of the field, but must first consult with the dance faculty regarding their course of study.

TECHNIQUE COURSES AND PERFORMANCE ENSEMBLE COURSES

The Dance Program offers a full range of dance instruction including courses in ballet, modern, jazz, and African as well as techniques developed from other cultural art and social forms such as flamenco, Classical Indian, Polynesian Hula, hip-hop, Latin social dance, and tap dance, among others. Performance ensembles, choreographed or re-staged by professional artists, are by audition only and are given full concert support. The Dance Outreach ensemble tours regional

schools. A ballet placement class is required for upper level ballet courses. Most technique courses are offered for a full semester. All technique courses and ensemble courses may be taken for Physical Education (PE) credit (see list below). Technique courses ARTD 136-139, 230-232, 330-331, and most Dance Ensembles, may be taken for academic credit.

TECHNIQUE/ENSEMBLE COURSES FOR PE CREDIT

PE B101 BALLET: BEGINNING TECHNIQUE
PE B102 BALLET: INTERMEDIATE TECHNIQUE
PE B103 BALLET: ADVANCED TECHNIQUE
PE B104 F/S BALLET WORKSHOP
PE B105 MODERN: BEGINNING TECHNIQUE
PE B106 MODERN: INTERMEDIATE TECHNIQUE
PE B107 MODERN: ADVANCED TECHNIQUE
PE B108 JAZZ: BEGINNING TECHNIQUE
PE B110 JAZZ: INTERMEDIATE TECHNIQUE
PE B111 HIP-HOP TECHNIQUE
PE B112 AFRICAN DANCE
PE B116 F/S SALSA
PE B117 F/S CLASSICAL INDIAN DANCE
PE B118 F/S MOVEMENT IMPROVISATION
PE B120 F/S INTRO. TO FLAMENCO
PE B121 F/S TAP I
PE B122 F/S INTRO TO SOCIAL DANCE
PE B123 F/S TAP II
PE B125 F/S SWING DANCE
PE B126 RHYTHM AND STYLE: FLAMENCO AND TAP
PEB129 THE GESTURE OF DANCE: CLASSICAL INDIAN AND POLYNESIAN/HULA
PE B131 HIP-HOP ENSEMBLE
PE B145 DANCE ENSEMBLE: MODERN
PE B146 DANCE ENSEMBLE: BALLET
PE B147 DANCE ENSEMBLE: JAZZ
PE B148 DANCE ENSEMBLE: AFRICAN
PE B149 DANCE ENSEMBLE: OUTREACH
PE B150 DANCE ENSEMBLE: SPECIAL TOPICS - HIP-HOP
PE B195 MOVEMENT FOR THEATER
PE B196 DANCE COMPOSITION LAB
PE B197 DIRECTED WORK IN DANCE

COURSES FOR ACADEMIC CREDIT

ARTD B136 001 INTRO TO DANCE TECHNIQUES I - MODERN
ARTD B137 002 INTRO TO DANCE TECHNIQUES I - BALLET
ARTD B138 001 INTRO TO DANCE TECHNIQUES II - MODERN
ARTD B139 002 INTRO TO DANCE TECHNIQUES II - BALLET
ARTD B140 APPROACHES TO DANCE: THEMES AND PERSPECTIVES
ARTD B142 DANCE COMPOSITION I
ARTD B145 DANCE: CLOSE READING
ARTD/ANTH B223 ANTHROPOLOGY OF DANCE
ARTD B230 INTERMEDIATE TECHNIQUE: MODERN
ARTD B231 INTERMEDIATE TECHNIQUE: BALLET
ARTD B232 INTERMEDIATE TECHNIQUE: JAZZ
ARTD B240 DANCE HISTORY I: ROOTS OF WESTERN THEATER DANCE (NOT OFFERED 2014-15)
ARTD B241 DANCE HISTORY II: A HISTORY OF CONTEMPORARY WESTERN THEATER DANCE (NOT OFFERED 2014-15)
ARTD B242 DANCE COMPOSITION II
ARTD B250 PERFORMING THE POLITICAL BODY (NOT OFFERED 2014-15)
ARTD B265 DANCE, MIGRATION AND EXILE (NOT OFFERED 2014-15)
ARTD/ANTH B310 PERFORMING IN THE CITY: THEORIZING BODIES IN SPACE (NOT OFFERED 2014-15)
ARTD B330 ADVANCED TECHNIQUE: MODERN
ARTD B331 ADVANCED TECHNIQUE: BALLET
ARTD B342 ADVANCED CHOREOGRAPHY
ARTD B345 DANCE ENSEMBLE: BALLET
ARTD B346 DANCE ENSEMBLE: MODERN
ARTD B347 DANCE ENSEMBLE: JAZZ
ARTD B348 DANCE ENSEMBLE: AFRICAN
ARTD B349 DANCE ENSEMBLE: OUTREACH
ARTD B350 DANCE ENSEMBLE: SPECIAL
ARTD B390 SENIOR PROJECT/THESIS
ARTD B403 SUPERVISED WORK

DANCE COURSES

ARTD B136 INTRODUCTION TO DANCE TECHNIQUES I: MODERN

M. Cantor, K. Stark, L. Caruso Haviland

Students enrolling in this course take one full semester of elementary modern dance and, with approval from the Dance Program, select another full semester technique course as well. The two courses together constitute .5 credit. Options for the second course vary by semester and may include: Ballet: Beginning Technique; The Gesture of Dance: Classical Indian/ Polynesian Hula; African Dance; Hip-hop; Jazz: Beginning Technique; Social Dance; Movement Improvisation and Intro to Tap. The schedule of these courses can be found on the Dance Program website www.brynmawr.edu/dance/courses/schedule.html and, at the beginning of the semester, on BIONIC under Physical Education. Students must attend the required number of technique class sessions; additional requirements for a passing grade include attendance at two mandatory lectures and one live dance performance and completion of three short writing assignments. Offered on a Pass/Fail basis only. Crosslisted as PE-B105.

ARTD B137 INTRODUCTION TO DANCE TECHNIQUES I: BALLET

L. Caruso Haviland, M. Chisena

Students enrolling in this course take one full semester of elementary modern dance and, with approval from the Dance Program, select another full semester technique course as well. The two courses together constitute .5 credit. Options for the second course vary by semester and may include: Modern: Beginning Technique; The Gesture of Dance: Classical Indian/ Polynesian Hula; African Dance; Hip-hop; Jazz: Beginning Technique; Social Dance; Movement Improvisation and Intro to Tap. The schedule of these courses can be found on the Dance Program website www.brynmawr.edu/dance/courses/schedule.html and, at the beginning of the semester, on BIONIC under Physical Education. Students must attend the required number of technique class sessions; additional requirements for a passing grade include attendance at two mandatory lectures and one live dance performance and completion of three short writing assignments. Offered on a Pass/Fail basis only. Crosslisted as PE-B101

ARTD B138 INTRODUCTION TO DANCE TECHNIQUES II: MODERN

M. Cantor, K. Stark, L. Caruso Haviland

Students enrolling in this course take one full semester of elementary modern dance and, with approval from the Dance Program, select another full semester technique course as well. The two courses together constitute .5 credit. Options for the second course vary by semester and may include: Modern: Beginning Technique; The Gesture of Dance: Classical Indian/ Polynesian Hula; African Dance; Hip-hop; Jazz: Beginning Technique; Social Dance: Swing and Salsa; Movement Improvisation and Intro to Tap. The schedule of these courses can be found on the Dance Program website www.brynmawr.edu/dance/courses/schedule.html and, at the beginning of the semester, on BIONIC under Physical Education. Students must attend the required number of technique class sessions; additional requirements for a passing grade include attendance at and critique of one live dance event and a short paper on a topic selected in consultation with the faculty coordinator. Offered on a Pass/Fail basis only.

ARTD B139 INTRODUCTION TO DANCE TECHNIQUES II: BALLET

L. Caruso Haviland, M. Chisena

Students enrolling in this course take one full semester of elementary modern dance and, with approval from the Dance Program, select another full semester technique course as well. The two courses together constitute .5 credit. Options for the second course vary by semester and may include: Modern: Beginning Technique; The Gesture of Dance: Classical Indian/ Polynesian Hula; African Dance; Hip-hop; Jazz: Beginning Technique; Social Dance: Swing and Salsa; Movement Improvisation and Intro to Tap. The schedule of these courses can be found on the Dance Program website www.brynmawr.edu/dance/courses/schedule.html and, at the beginning of the semester, on BIONIC under Physical Education. Students must attend the required number of technique class sessions; additional requirements for a passing grade include attendance at and critique of one live dance event and a short paper on a topic selected in consultation with the faculty coordinator. Offered on a Pass/Fail basis only.

ARTD B140 APPROACHES TO DANCE: THEMES AND PERSPECTIVES

This course introduces students to dance as a multi-layered, significant and enduring human behavior that ranges from art to play to ritual to politics and beyond. It engages students in the creative, critical and conceptual processes that emerge in response to the study of dance. It also explores the research potential that arises when other areas of academic inquiry, including criticism, ethnology, history and philosophy, interact with dance and dance scholarship. Lectures, discussion, film, video, and guest speakers are included.

ARTD B142 DANCE COMPOSITION I

In this introduction to the art of making dances, an array of compositional tools and approaches is used to evolve and refine choreographic ideas. Basic concepts such as space, phrasing, timing, image, energy, density and partnering are introduced and explored alongside attention to the roles of inspiration and synthesis in the creative process. Improvisation is used to explore choreographic ideas and students learn to help and direct others in generating movement. Discussion of and feedback on weekly choreographic assignments and

readings contributes to analyzing and refining choreography. Concurrent attendance in any level technique course is required. Crosslisted as ARTT-B142.

ARTD B145 FOCUS: DANCE- CLOSE READING

This is a focus course. Students will engage in a closer reading of dance, using live dance performances as primary texts and setting these performances in critical and historical contexts through readings in dance criticism and theory, lectures and discussion, and media. Each week, students will consider focused questions and work through practical and analytical tasks related to critical seeing. They will apply their findings in organized field trips, where they will view a live performance, selected from a range of genres, and work through their responses in discussion and writing.

ARTD B223 ANTHROPOLOGY OF DANCE

L. Vriend

This course surveys ethnographic approaches to the study of global dance in a variety of contemporary and historical contexts, including contact improvisation, Argentinian tango, Kathak dance in Indian modernity, a range of traditional dances from Japan and China, capoeira in today's Brazil, and social dances in North America and Europe. Recognizing dance as a kind of shared cultural knowledge and drawing on theories and literature in anthropology, dance and related fields such as history, and ethnomusicology, we will examine dance's relationship to social structure, ethnicity, gender, spirituality and politics. Lectures, discussion, media, and fieldwork are included. Prerequisite: A course in anthropology or related discipline, or a dance lecture/ seminar course, or permission of the instructor. Crosslisted as ANTH-B223.

ARTD B230 MODERN: INTERMEDIATE TECHNIQUE

Intermediate level dance technique courses focus on expanding the movement vocabulary, on introducing movement phrases that are increasingly complex and demanding, and on further attention to motional dynamics and spatial contexts. Students at this level are also expected to begin demonstrating an intellectual and kinesthetic understanding of these technical challenges and their actual performance. Students will be evaluated on their openness and commitment to the learning process, increased understanding of the technique, and demonstration in class of their technical and stylistic progress as articulated within the field. Suggested Preparation: Three semesters of PE B105, ARTD B136: Intro to Dance Tech 1: Modern, its equivalent, or permission of the instructor. Crosslisted as PE-B106.

ARTD B231 BALLET: INTERMEDIATE TECHNIQUE

C. Moss

Intermediate level dance technique courses focus on expanding the movement vocabulary, on introducing movement phrases that are increasingly complex and demanding, and on further attention to motional dynamics and spatial contexts. Students at this level are also expected to begin demonstrating an intellectual and kinesthetic understanding of these technical challenges and their actual performance. Students will be evaluated on their openness and commitment to the learning process, increased understanding of the technique, and demonstration in class of their technical and stylistic progress as articulated within the field. Suggested Preparation: Three semesters of PE B101, ARTD B137: Intro to Dance Tech 1: Ballet, its equivalent, or permission of the instructor. Crosslisted as PE-B102.

ARTD B232 JAZZ: INTERMEDIATE TECHNIQUE

Y. Goodman

Intermediate level dance technique courses focus on expanding the movement vocabulary, on introducing movement phrases that are increasingly complex and demanding, and on further attention to motional dynamics and spatial contexts. Students at this level are also expected to begin demonstrating an intellectual and kinesthetic understanding of these technical challenges and their actual performance. Students will be evaluated on their openness and commitment to the learning process, increased understanding of the technique, and demonstration in class of their technical and stylistic progress as articulated within the field. Suggested Preparation: Three semesters of PE B108: Jazz: Beginning Technique, its equivalent, or permission of the instructor. Crosslisted as PE-B110.

ARTD B240 DANCE HISTORY I: ROOTS OF WESTERN THEATER DANCE

This course investigates the historic and cultural forces affecting the development and functions of pre-20th-century Western theater dance. It will

consider nontheatrical forms and applications as well, but will give special emphasis to the development of theater dance forms within the context of their relationship to and impact on Western culture. The course, of necessity, will give some consideration as well to the impact of global interchange on the development of Western dance. It will also introduce students to a selection of traditional and more contemporary models of historiography with particular reference to the changing modes of documenting, researching and analyzing dance. In addition to lectures and discussion, the course will include film, video, slides, and some movement experiences.
(Not Offered 2014–2015.)

ARTD B241 DANCE HISTORY II: A HISTORY OF CONTEMPORARY WESTERN THEATER DANCE
This course investigates the history of dance with particular emphasis on its development in the twentieth and twenty-first centuries as a Western Theatre Art form within a broader context of global art and culture. The course investigates the historical and cultural forces that shape both the form and function of dance as well as the reciprocal relationship of dance to or impact on those same forces. Dance will be considered both chronologically and theoretically as cultural, social, aesthetic, and personal phenomena. The course will provide students with an introduction to both traditional and more contemporary models of historiography with particular reference to the changing modes of documenting, researching and analyzing dance. In addition to lectures and discussion, the course will include film, video, slides, and some movement experiences. (Not Offered 2014–2015.)

ARTD B242 DANCE COMPOSITION II
M. Cantor
This course builds on work accomplished in Composition I and develops an understanding of and skill in the theory and craft of choreography. This includes deepening movement invention skills; exploring form and structure; investigating sources for sound, music, text and language; developing group design; and broadening critical understanding. Students will work on projects and will have some opportunity to revise and expand work. Readings and viewings will be assigned and related production problems will be considered. Concurrent attendance in any level technique course is required. Prerequisite: ARTD B142.

ARTD B265 DANCE, MIGRATION AND EXILE
Highlighting aesthetic, political, social and spiritual powers of dance as it travels, transforms, and is accorded meaning both domestically and transnationally, especially in situations of war and social and political upheaval, this course investigates the re-creation of heritage and the production of new traditions in refugee camps and in diaspora. Prerequisite: A Dance lecture/seminar course or a course in a relevant discipline such as anthropology, sociology, or Peace and Conflict Studies, or permission of the instructor. Crosslistied as ANTH-B265. (Not Offered 2014–2015.)

ARTD B310 PERFORMING THE CITY: THEORIZING BODIES IN SPACE
Building on the premise that space is a concern in performance, choreography, architecture and urban planning, this course will interrogate relationships between (performing) bodies and (city) spaces. Using perspectives from dance and performance studies, urban studies and cultural geography, it will introduce space, spatiality and the city as material and theoretical concepts and investigate how moving and performing bodies and city spaces intersect in political, social and cultural contexts. Lectures, discussion of assigned readings, attendance at live performance and 2-3 field trips are included. Prerequisites: One Dance lecture/seminar course or one course in relevant discipline e.g. cities, anthropology, sociology or permission of the instructor. Crosslistied as ARTT-B310. (Not Offered 2014–2015.)

ARTD B330 MODERN: ADVANCED TECHNIQUE
R. Malcolm-Naib
Advanced level technique courses continue to expand movement vocabulary and to introduce increasingly challenging movement phrases and repertory. Students are also expected to begin recognizing and incorporating the varied gestural and dynamic markers of styles and genres, with an eye to both developing their facility for working with various choreographic models and for beginning to mark out their individual movement preferences. These courses continue to focus on both the intellectual and kinesthetic understanding and command of technical challenges and their actual performance. Suggested Preparation: Two semesters of PE

B107/ARTD B230: Modern: Intermediate Technique, its equivalent, or permission of the instructor. Crosslisted as PE-B107.

ARTD B331 BALLET: ADVANCED TECHNIQUE

L. Mintzer

Advanced level technique courses continue to expand movement vocabulary and to introduce increasingly challenging movement phrases and repertory. Students are also expected to begin recognizing and incorporating the varied gestural and dynamic markers of styles and genres, with an eye to both developing their facility for working with various choreographic models and for beginning to mark out their individual movement preferences. These courses continue to focus on both the intellectual and kinesthetic understanding and command of technical challenges and their actual performance. The last half hour of this class includes optional pointe work with permission of the instructor. Suggested Preparation: Two semesters of PE B103/ARTD B231: Ballet: Intermediate Technique, its equivalent, or permission of the instructor. Crosslisted as PE-B103.

ARTD B342 ADVANCED CHOREOGRAPHY

L. Caruso Haviland, M. Cantor

Independent study in choreography under the guidance of the instructor. Students are expected to produce one major choreographic work and are responsible for all production considerations. Concurrent attendance in any level technique course is required.

ARTD B345 DANCE ENSEMBLE: MODERN

L. Caruso Haviland

Dance ensembles are designed to offer students significant opportunities to develop dance technique, particularly in relationship to dance as a performance art. Students audition for entrance into individual ensembles. Original works choreographed by faculty or guest choreographers or works reconstructed / restaged from classic or contemporary repertories are rehearsed and performed in concert. Students are evaluated on their participation in rehearsals, their demonstration of full commitment and openness to the choreographic and performance processes both in terms of attitude and technical practice, and achievement of expected levels of performance. This course is suitable for intermediate and advanced level dancers. Concurrent attendance in at least one technique class per week is required. Crosslisted as PE-B145.

Fall 2014, Spring 2015 topic description:
Students will learn a historical work from the repertory of the renowned dance artist and choreographer Martha Graham. "Steps in the Street" was created in 1936 as a portrait of the human condition between two world wars. The piece, licensed through the Martha Graham Dance Company will be reconstructed by Jennifer Conley, a former member of both the Martha Graham Dance Company and Pearl Lang Dance Theatre. Students will need to attend six classes in the Graham technique offered in conjunction with the first three weeks of Advanced Technique: Modern Class.

ARTD B346 DANCE ENSEMBLE: BALLET

Dance ensembles are designed to offer students significant opportunities to develop dance technique, particularly in relationship to dance as a performance art. Students audition for entrance into individual ensembles. Original works choreographed by faculty or guest choreographers or works reconstructed / restaged from classic or contemporary repertories are rehearsed and performed in concert. Students are evaluated on their participation in rehearsals, their demonstration of full commitment and openness to the choreographic and performance processes both in terms of attitude and technical practice, and achievement of expected levels of performance. This course is suitable for intermediate and advanced level dancers. Concurrent attendance in at least one technique class per week is required. Crosslisted as PE-B146.

ARTD B347 DANCE ENSEMBLE: JAZZ

Dance ensembles are designed to offer students significant opportunities to develop dance technique, particularly in relationship to dance as a performance art. Students audition for entrance into individual ensembles. Original works choreographed by faculty or guest choreographers or works reconstructed / restaged from classic or contemporary repertories are rehearsed and performed in concert. Students are evaluated on their participation in rehearsals, their demonstration of full commitment and openness to the choreographic and performance

processes both in terms of attitude and technical practice, and achievement of expected levels of performance This course is suitable for intermediate and advanced level dancers. Concurrent attendance in at least one technique class per week is required. Crosslisted as PE-B147.

ARTD B348 DANCE ENSEMBLE: AFRICAN

Dance ensembles are designed to offer students significant opportunities to develop dance technique, particularly in relationship to dance as a performance art. Students audition for entrance into individual ensembles. Original works choreographed by faculty or guest choreographers or works reconstructed / restaged from classic or contemporary repertories are rehearsed and performed in concert. Students are evaluated on their participation in rehearsals, their demonstration of full commitment and openness to the choreographic and performance processes both in terms of attitude and technical practice, and achievement of expected levels of performance. This course is suitable for intermediate and advanced level dancers. Concurrent attendance in at least one technique class per week is suggested. Crosslisted as PE-B148.

ARTD B349 DANCE ENSEMBLE: DANCE OUTREACH

Dance ensembles are offered in Ballet, Modern, Jazz, African, and Dance Outreach and are designed to offer students significant opportunities to develop dance technique, particularly in relationship to dance as a performance art. Students audition for entrance into individual ensembles. Original works choreographed by faculty or guest choreographers or works reconstructed / restaged from classic or contemporary repertories are rehearsed and performed in concert. Students are evaluated on their participation in rehearsals, their demonstration of full commitment and openness to the choreographic and performance processes both in terms of attitude and technical practice, and achievement of expected levels of performance. This course is suitable for intermediate and advanced level dancers. Concurrent attendance in at least one technique class per week is suggested. Crosslisted as PE-B149 (Not Offered 2014–2015.)

ARTD B350 DANCE ENSEMBLE: SPECIAL TOPICS

This is a topics course. The genre or style content of this ensemble varies. Dance ensembles are designed to offer students significant opportunities to develop dance technique, particularly in relationship to dance as a performance art. Students audition for entrance into individual ensembles. Original works choreographed by faculty or guest choreographers or works reconstructed / restaged from classic or contemporary repertories are rehearsed and performed in concert. Students are evaluated on their participation in rehearsals, their demonstration of full commitment and openness to the choreographic and performance processes both in terms of attitude and technical practice, and achievement of expected levels of performance. This course is suitable for intermediate and advanced level dancers. Concurrent attendance in at least one technique class per week is suggested. Crosslisted as PE-B150.

ARTD B390 SENIOR PROJECT/THESIS

Majors develop, in conjunction with a faculty advisor, a senior capstone experience that is complementary to and will expand and deepen their work and interests within the field of dance. This can range from a significant research or expository paper to a substantial choreographic work that will be supported in a full studio performance. Students who elect to do choreographic or performance work must also submit a portfolio (10 pages) of written work on dance. Work begins in the fall semester and should be completed by the middle of the spring semester. One outside evaluator will be invited to offer additional comment.

ARTD B403 SUPERVISED WORK

Research in a particular topic of dance under the guidance of an instructor, resulting in a final paper or project.

THEATER

The curricular portion of the Bryn Mawr and Haverford Colleges' Theater Program focuses on the point of contact between creative and analytic work. Courses combine theory (reading and discussion of dramatic literature, history, and criticism) and practical work (creative exercises, scene study and performance) to provide viable theater training within a liberal-arts context.

THEATER MINOR REQUIREMENTS

Requirements for the minor in Theater are six units of course work, three required (ARTT 150, 251 and 252) and three elective. Students must consult with the Theater faculty to ensure that the necessary areas in the field are covered. Students may submit an application to major in Theater through the independent major program.

THEATER PERFORMANCE

Numerous opportunities exist to act, direct, design and work in technical theater. In addition to the Theater Program's mainstage productions, many student theater groups exist that are committed to musical theater, improvisation, community outreach, Shakespeare, film and video work, etc. All Theater Program productions are open and casting is routinely blind with respect to race and gender.

THEATER COURSES

ARTT B142 DANCE COMPOSITION I

In this introduction to the art of making dances, an array of compositional tools and approaches is used to evolve and refine choreographic ideas. Basic concepts such as space, phrasing, timing, image, energy, density and partnering are introduced and explored alongside attention to the roles of inspiration and synthesis in the creative process. Improvisation is used to explore choreographic ideas and students learn to help and direct others in generating movement. Discussion of and feedback on weekly choreographic assignments and readings contributes to analyzing and refining choreography. Concurrent attendance in any level technique course is required. Crosslisted as ARTD-B142.

ARTT B151 FOCUS: DRAMATIC STRUCTURES IN PLAYS, PERFORMANCE, AND FILM

This course is an introduction to techniques of dramatic structure that are used in the creation of plays, works of performance art, and films. We will have recourse in our work to some crucial theoretical documents as well as to play scripts both classic and contemporary and archived and live performances. Participants will make critical readings of works using the techniques of artistic analysis utilized by directors, dramaturgs, actors, playwrights and designers. This course is intended to be a touchstone for the study of any of these creative pursuits as well as an excellent opportunity for interested students to acquaint themselves with critical aspects of the creative process. (Not Offered 2014-2015.)

ARTT B152 FOCUS: WRITING ABOUT THEATER AND PERFORMANCE

This course will constitute an introduction to writing about theater and performance art events. Our work will be structured in relation to a number of live and archived performances which the class will see on and off-campus. Students will practice techniques for preparing to see a performance, discuss strategies for reading dramatic texts and for observing time-based art. We will read notable examples of occasional criticism by a diverse group of writers of the past fifty years, who publish in a wide variety of forms including on blogs and social media. We will examine their work for techniques and strategies. Students will also read and respond to each other's writing. Central questions of the course include the evolution of critical vocabulary, the role of the critic's bias, the development of a critical voice, and the likely trajectory of the fields of criticism and performance. (Not Offered 2014-2015.)

ARTT B230 TOPICS IN AMERICAN DRAMA

G. Hemmeter

Considers American plays of the 20th century, reading major playwrights of the canon alongside other dramatists who were less often read and produced. Will also study later 20th century dramatists whose plays both develop and resist the complex foundation established by canonical American playwrights and how American drama reflects and responds to cultural and political shifts. Considers how modern American identity has been constructed through dramatic performance, considering both written and performed versions of these plays. Crosslisted as ENGL-B230.

ARTT B232 TECHNICAL THEATER I: FUNDAMENTALS OF LIGHTING TECHNIQUES AND TECHNOLOGY

The course is an introduction to how lights and lighting technologies are implemented in a theatrical context. Different from lighting design, this course is on the fundamental skills of instrument operation, installation, programming, and troubleshooting. Collaboration is the key to the successful implementation of these skills and

students will work with designers to properly execute their concepts. Students will be required to attend outside performances and provide written analysis on how the techniques they've learned may have been used. (Not Offered 2014-2015.)

ARTT B233 TECHNICAL THEATER II: FUNDAMENTALS OF SCENIC CARPENTRY

The course is an introduction to the basic principles of scenic carpentry and set construction. It is meant to offer a hands-on approach to the craft as well as the underlying concepts behind how sets are built. Students will begin with a safety course in the use of hand and power tools, then learn how to translate design drawings into fully realized sets. Fundamental set elements such as flats, jacks, and cubes will be built, as well as individual projects. Students can expect to leave the class empowered by a project based learning experience that will translate into a practical skill set useful in both theater and the outside world. This is a quarter course. (Not Offered 2014-2015.)

ARTT B250 20TH-CENTURY THEORIES OF ACTING

An introduction to 20th-century theories of acting emphasizing the intellectual, aesthetic, and sociopolitical factors surrounding the emergence of each director's approach to the study of human behavior on stage. Various theoretical approaches to the task of developing a role are applied in workshop and scene study. (Not Offered 2014-2015.)

ARTT B251 FUNDAMENTALS OF ACTING

C. Slusar

An introduction to the fundamental elements of acting (scene analysis, characterization, improvisation, vocal and gestural presentation, and ensemble work) through the study of scenes from significant 20th-century dramatic literature.

ARTT B252 FUNDAMENTALS OF TECHNICAL THEATER

J. McDaniel

A practical, hands-on workshop in the creative process of turning a concept into a tangible, workable end through the physical execution of a design. Exploring new and traditional methods of achieving a coherent synthesis of all areas of technical production.

ARTT B253 PERFORMANCE ENSEMBLE

C. Slusar

An intensive workshop in the methodologies and aesthetics of theater performance, this course is open to students with significant experience in performance. In collaboration with the director of theater, students will explore a range of performance techniques and styles in the context of rehearsing a performance project. Admission to the class is by audition or permission of the instructor. The class is offered for a half-unit of credit.

ARTT B254 FUNDAMENTALS OF THEATER DESIGN

M. Matsushima

An introduction to the creative process of visual design for theater; exploring dramatic context and influence of cultural, social, and ideological forces on theater and examining practical applications of various technical elements such as scenery, costume, and lighting while emphasizing their aesthetic integration.

ARTT B255 FUNDAMENTALS OF COSTUME DESIGN

M. Matsushima

Hands-on practical workshop on costume design for performing arts; analysis of text, characters, movement, situations; historical and stylistic research; cultivation of initial concept through materialization and plotting to execution of design.

ARTT B262 PLAYWRITING I

D. Guha

An introduction to playwriting through a combination of reading assignments, writing exercises, discussions about craft and ultimately the creation of a complete one-act play. Students will work to discover and develop their own unique voices as they learn the technical aspects of the craft of playwriting. Short writing assignments will complement each reading assignment. The final assignment will be to write an original one-act play. Crosslisted as ARTW-B262.

ARTT B265 ACTING ACROSS CULTURE

This course examines how we access Shakespeare across culture and across language, as performers and audience members. We will explore the role of creator/performer using traditional and non-traditional means (text work and scansion, investigation of objective and actions, and first-

folio technique). Prerequisites: Fundamentals of Acting or its equivalent. (Not Offered 2014-2015.)

ARTT B270 ECOLOGIES OF THEATER: PERFORMANCE, PLAY, AND LANDSCAPE

M. Lord

Students in this course will investigate the notion of theatrical landscape and its relation to plays and to the worlds that those landscapes refer to. Through readings in contemporary drama and performance and through the construction and evaluation of performances, the class will explore the relationship between human beings and the environments they imagine, and will study the ways in which those relationships impact how we think about our relationship to the world in which we live. The course will culminate in a series of public performances.Suggested Preparation: Any course in theater, design, film, drama, or permission of the instructor. Crosslisted as COML-B269

ARTT B310 PERFORMING THE CITY: THEORIZING BODIES IN SPACE

Building on the premise that space is a concern in performance, choreography, architecture and urban planning, this course will interrogate relationships between (performing) bodies and (city) spaces. Using perspectives from dance and performance studies, urban studies and cultural geography, it will introduce space, spatiality and the city as material and theoretical concepts and investigate how moving and performing bodies and city spaces intersect in political, social and cultural contexts. Lectures, discussion of assigned readings, attendance at live performance and 2-3 field trips are included. Prerequisites: One Dance lecture/seminar course or one course in relevant discipline e.g. cities, anthropology, sociology or permission of the instructor. Crosslisted as ARTD-B310. (Not Offered 2014-2015.)

ARTT B332 THE ACTOR CREATES: PERFORMANCE STUDIO IN GENERATING ORIGINAL WORK

C. Slusar

This course explores the actor as creator, inviting the performer to become a generative artist with agency to invent her own work. Building on skills introduced in Fundamentals of Acting, we will introduce new methodologies of training to construct a framework in which students can approach making original solo and group work. Students will use processes employing visual art, found dialogue, music, autobiography, and more. Emphasizing guided, individual, and group collaboration, we will examine the role of the actor/creator through exercises and readings that relate the actor's creative process to an understanding of self and the artist's role in communities. Prerequisite: ARTT B251 (Fundamentals of Acting)

ARTT B351 ACTING II

A continuation of the methods of inquiry in Fundamentals of Acting, this course is structured as a series of project-based learning explorations in acting. Students will supplement their study, rehearsal, and performance work by exploring principals of directing, dramaturgy, and design as applied to class projects as well as with advanced training in movement and voice. Readings will be drawn from the acting texts of Stanislavski, Michael Chekhov and others, with reflections and critiques recorded in a journal. Prerequisite: Permission of instructor. (Not Offered 2014-2015)

ARTT B353 ADVANCED PERFORMANCE ENSEMBLE

C. Slusar

An advanced, intensive workshop in theater performance. Students explore a range of performance techniques in the context of rehearsing a performance project, and participate in weekly seminars in which the aesthetic and theatrical principles of the play and production will be developed and challenged. The course may be repeated. Prerequisite: ARTT B253 or permission of the instructor.

ARTT B356 ENDGAMES: THEATER OF SAMUEL BECKETT

An exploration of Beckett's theater work conducted through both reading and practical exercises in performance techniques. Points of special interest include the monologue form of the early novels and its translation into theater, Beckett's influences (particularly silent film) and collaborations, and the relationship between the texts of the major dramatic works and the development of both modern and postmodern performance techniques. Crosslisted as ENGL-B356. (Not Offered 2014-2015)

ARTT B359 DIRECTING FOR THE STAGE

A semiotic approach to the basic concepts and methods of stage direction. Topics explored through readings, discussion and creative exercises include directorial concept, script

analysis and research, stage composition and movement, and casting and actor coaching. Students rehearse and present three major scenes. (Not Offered 2014-2015.)

ARTT B403 SUPERVISED WORK

ASTRONOMY

haverford.edu/astronomy

The Astronomy department centers its curriculum on the phenomena of the extraterrestrial Universe and on understanding them in terms of the fundamental principles of physics. We emphasize student research with faculty members, and upper-level courses contain substantial project- and/or research-based investigation.

The 12 courses currently offered in the Astronomy Department address the variety of learning goals:

- Knowledge of the contents of the extraterrestrial universe, including planets, stars, galaxies, and the large-scale structure of the universe itself, and understanding the formation and evolution of all of these.
- Problem-solving skills: Like physics, astronomy emphasizes the understanding the physical world in terms of physical laws, an endeavor that is validated by applying these mathematical laws to a variety of astrophysical phenomena and then solving the resulting mathematical problem in order to verify the subsequent predictions with observations.
- Constructing models: The construction of models to describe natural phenomena and astronomy represents the most creative aspect of any science.
- Developing Physical Intuition: the ability to look at a complicated system and know what's important.
- Computer programming
- Observing skills in using a variety of astronomical instruments
- Research experience, which involves:
  - o confronting the unknown and tolerating its ambiguity
  - o generating new science with which to understand new observations
  - o analyzing data
  - o the art of scientific collaboration
  - o oral and written communication of new results
  - o designing new experiments/observations
  - o networking with other scientists to generate new collaborative efforts.

CURRICULUM

Our department offers two majors: astronomy and astrophysics. Both majors provide substantial training in quantitative reasoning and independent thinking through work in and out of the classroom.
The department also offers a minor in astronomy.

- The astronomy major is appropriate for students who desire an in-depth education in astronomy that can be applied to a wide-range of career trajectories, but who do not necessarily intend to pursue graduate study in astronomy.
- The astrophysics major is appropriate for students who wish to pursue the study of astronomy with additional attention to the physical principles that underlie astrophysical phenomena. The depth of the physics training required for a degree in astrophysics will prepare students who wish to pursue a career in astronomy or astrophysics, or to do graduate study in astronomy or astrophysics.

Although a variety of pathways can lead to a major in the department, we advise prospective astronomy or astrophysics majors to:

- study physics (Physics 105 and 106, or 101 and 102, or Bryn Mawr equivalents) beginning in their first year
- enroll in Astronomy 205/206 and Physics 213/214 in their sophomore year.
- take Astronomy/Physics 152 in the second semester of the first year.

The department offers three courses, Astronomy 101a, Astronomy 112, and Astronomy 114b, which student can take with no prerequisites or prior experience in astronomy. The department also offers a half-credit course, Astronomy/Physics 152, for first-year students who are considering a physical science major and wish to study some of the most recent developments in astrophysics.

Students may major in astronomy or astrophysics, but not both. Astrophysics majors may not double major in either physics or astronomy, nor

can they minor in either physics or astronomy. Astronomy majors may pursue a double major or a minor in physics. A concentration in scientific computing is available for astronomy and astrophysics majors. The department coordinator for this concentration is Beth Willman.

MAJOR REQUIREMENTS

Physics 105 (or 101), Physics 106 (or 102), Physics 213, Physics 214.

- Two mathematics courses. Majors can use Mathematics 121 and all 200-level or higher mathematics courses to satisfy this requirement.
- Astronomy 205, Astronomy 206, and four 300-level astronomy courses, one of which majors may replace with an upper-level physics course. Majors may substitute 100-level Swarthmore astronomy seminars for 300-level astronomy courses.
- Astronomy 404, which students may replace by approved independent research either at Haverford or elsewhere.
- Written comprehensive examinations.

Majors may substitute Bryn Mawr equivalents for the non-astronomy courses. We recommend but do not require Astronomy/Physics 152.

ASTROPHYSICS MAJOR REQUIREMENTS

- Physics 105 (or 101), Physics 106 (or 102), Physics 213, Physics 214, Physics 211 (usually taken concurrently with Physics 213).
- Two mathematics courses. Majors can use Mathematics 121 and all 200-level or higher mathematics courses to satisfy this requirement.
- Astronomy 205, Astronomy 206, and any two 300 level astronomy courses. Majors can substitute 100-level Swarthmore astronomy seminars for 300-level astronomy courses.
- Physics 302, Physics 303, and Physics 309.
- The Senior Seminar, Physics 399, including a talk and senior thesis on research conducted by the student. Majors can undertake this research in a 400-level research course with any member of the Physics or Astronomy departments or by doing extracurricular research at Haverford or elsewhere, e.g., an approved summer research internship at another institution. The major writes a thesis under the supervision of both the research advisor and (if the research advisor is not a Haverford faculty member) a Haverford advisor.

Majors may substitute Bryn Mawr equivalents for the non-astronomy courses. We recommend but do not require Astronomy/Physics 152 and Physics 308.

MINOR REQUIREMENTS

- Physics 105 (or 101); Physics 106 (or 102)
- Astronomy 205; Astronomy 206; one 300 level astronomy course. Minors may substitute a 100-level Swarthmore astronomy seminar for the 300-level astronomy course.

We recommend (but do not require) Astronomy/Physics 152.

HONORS REQUIREMENTS

The department regards all astronomy and astrophysics majors as candidates for Honors. For both majors, faculty awards honors in part on the basis of superior work in the departmental courses and in certain related courses. For astronomy majors, the faculty also bases honors on performance on the comprehensive examinations, with consideration for independent research. For astrophysics majors, the faculty also bases honors on the senior thesis.

FACILITIES

The William J. Strawbridge Observatory, given in 1933, has its own library, classroom, computer room, and workspace for departmental students. Facilities include:

- a computer controlled 16" Schmidt-Cassegrain telescope with a CCD camera;
- a CCD spectrometer; a 12" Schmidt-Cassegrain telescope;
- three portable 8" telescopes with outside piers;
- a 4" solar telescope

Linux and Mac computers are available for student research and astronomy classwork. The astronomy library contains 3,000 bound volumes and most of the relevant astronomy journals. All of these facilities are available for use by students.

SPECIAL PROGRAMS

In 2010, Haverford became a member of the 0.9m telescope at Tucson's Kitt Peak National Observatory (noao.edu/0.9m) consortium, and in 2013 we became a member of the Northeast Astronomy Participation Group's partnership with the ARC 3.5m telescope at Apache Point

Observatory (apo.nmsu.edu) in New Mexico. We offer all Haverford astronomy and astrophysics majors the opportunity to obtain astronomical observations at one of these research facilities in Tucson or Apache Point.

Haverford is also part of the KNAC eight-college consortium (astro.swarthmore.edu/knac) that provides research assistantships for a summer student exchange program, grants for student travel to outside observatories, and a yearly symposium at which students present their research.

FACULTY

Beth Willman
Associate Professor of Astronomy

Desika Narayanan
Assistant Professor of Astronomy

COURSES

101 ASTRONOMICAL IDEAS

Beth Willman, Desika Narayanan
Fundamental concepts and observations of modern astronomy, such as the properties of planets, the birth and death of stars, and the properties and evolution of the Universe. Not intended for students majoring in the physical sciences.

152I FRESHMAN SEMINAR IN ASTROPHYSICS

Desika Narayanan
This half-credit course is intended for prospective physical science majors with an interest in recent developments in astrophysics. The class examines topics in modern astrophysics in the context of underlying physical principles. Topics include black holes, quasars, neutron stars, supernovae, dark matter, the Big Bang, and Einstein's relativity theories.

205A INTRODUTION TO ASTROPHYSICS I

Desika Narayanan
General introduction to astronomy including: the structure and evolution of stars; the properties and evolution of the solar system including planetary surfaces and atmospheres; exoplanets; and observational projects using the Strawbridge Observatory telescopes.

206B INTRO ASTROPHYS II

Beth Willman
Introduction to the study of: the structure and formation of the Milky Way galaxy; the interstellar medium; the properties of galaxies and their nuclei; and cosmology including the Hot Big Bang model.

341A OBSERVATIONAL ASTRONOMY

Beth Willman
Observing projects that involve using a CCD camera on a 16-inch Schmidt-Cassegrain telescope. Projects include spectroscopy; variable star photometry; H-alpha imaging; imaging and photometry of galaxies and star clusters; instruction in the use of image processing software and CCD camera operation. Students work in groups of two with minimal faculty supervision. Formal reports are required.

404 RESEARCH IN ASTROPHYSICS

Beth Willman, Desika Narayanan
Intended for those students who choose to complete an independent research project in astrophysics under the supervision of a faculty member.

ATHLETICS

haverfordathletics.com

Haverford's Athletic department is committed to the belief that physical education is an integral component of each student's liberal arts education. The department offers a wide range of athletic opportunities for both men and women—intercollegiate varsity teams, competitive club teams, intramural programs, instructional classes, and recreational activities—designed to meet the diverse and changing interests of its student body within the College's mission of excellence and individual growth. All Haverford students must complete a six-quarter athletic requirement during their first two years at the College.

INTERCOLLEGIATE VARSITY PROGRAM

The Department is committed to integrating athletics within the educational mission of the College and creating and supporting a culture of success that encourages and supports each student-athlete's pursuit of both academic and athletic excellence. While maintaining a balance between academic and athletic achievement, each coach seeks to establish a positive competitive environment that fosters the intellectual, physical, and personal development of each student-athlete based upon the values of sportsmanship, integrity, leadership, trust, respect, loyalty, and concern for others. Policies and personnel reflect the Athletic department's desire to create an athletic program that is be a source of pride and enthusiasm for all members of the Haverford community. The athletic program boasts a broad-based 23 varsity teams: men's varsities in baseball, basketball, cross-country, fencing, lacrosse, soccer, squash, tennis, indoor track, and outdoor track; women's varsities in basketball, cross-country, fencing, field hockey, lacrosse, soccer, softball, squash, tennis, indoor track, outdoor track, and volleyball; coed varsity in cricket. Junior varsities are organized for sports when interest and appropriate competition is present.

CLUB SPORT PROGRAM

The Haverford Athletic department works collaboratively with Student Activities to provide facilities and guidance in order to facilitate the students' training and competitive goals at the club level. Currently recognized Haverford club sports are: men's and women's badminton, men's and women's crew, men's and women's golf, men's rugby, men's and women's soccer, and men's and women's ultimate Frisbee.

INTRAMURAL, INSTRUCTIONAL, AND RECREATIONAL PROGRAMS

The Haverford Athletic department provides facilities, guidance, instruction, and other resources to create, support, and maintain a broad based offering of programs to promote the health and fitness needs throughout Haverford's student, faculty, and staff community. The department encourages each student's involvement in physical activities in order to promote and establish a foundation for a lifelong commitment to and involvement in fitness and health. Intramural leagues in soccer, basketball, and softball are held yearly, while other leagues are sponsored, when needed, to meet student interest. Instructional classes in any one year may include aerobics, athletic training/first aid/CPR, badminton, bowling, coaching, dance, fencing, golf, martial arts and self-defense, officiating, running techniques, sports skills, squash, tennis, weight training, and yoga. Students may count courses at Bryn Mawr for credit toward Haverford's requirement, and these include archery, dance (jazz, ballet, social, modern, improvisational, and ethnic), life saving/water safety, and swimming.

REGISTRATION/CREDIT

Students register for athletic participation during their first two years in the same periods designated for academic registration. Schedules for courses, intramural, and intercollegiate activities are available at those times. We expect that students schedule activities for athletic credit immediately after they have completed their academic registration. We grant credit toward the athletic requirement on the basis of attendance and participation in activities; skill proficiency is not considered. If a student stops participating

in one activity during a particular quarter, he or she should arrange to transfer immediately into another to earn the credit for that quarter. Most intercollegiate sports cover two quarters, as does the athletic training/first aid course. Intramural leagues may span one or two quarters depending on the season. Instructional courses are generally one quarter in duration.

ATHLETICS STAFF

Wendall Smith
Director of Athletics

Colin Bathory
Men's Lacrosse Head Coach

David Beccaria
Baseball Head Coach/Assistant Athletic Director/SAAC Liaison/Community Service & Recruiting Coordinator

Michele Benoit
Volleyball Head Coach/Club Sport Liaison

Erin Brooks
Softball Head Coach

Niki Clement
Men's and Women's Squash Head Coach

Jackie Cox
Field Hockey Head Coach/Assistant Strength and Conditioning Coach

Warren Croxton
Assistant Sports Information Director

Melissa Cruice
Assistant Athletic Trainer/Compliance Coordinator

Thomas Donnelly Head Coach of Men's Cross-Country, Track & Field

Carole Gormley
Administrative Assistant

Justin Grube
Director of Sports Information

Jim Kenyon
Facilities Manager/Coordinator of Game Day Operations/Assistant Compliance Coordinator

Kamran Rashid Khan
Head Cricket Coach

Ann Koger
Women's Tennis Head Coach/Associate Director of Athletics

Casey Londergan
Faculty Athletic Representative

Curt Mauger
Head Athletic Trainer

Bonnie McAllister
Assistant to the Athletic Director

Tifani Melendez
ATC (Assistant Athletic Trainer [NovaCare]

Bobbi Morgan
Women's Basketball Head Coach/Senior Woman Administrator/Fundraising Coordinator

Michael Mucci
Men's Basketball Head Coach

Shane Rineer
Men's Soccer Head Coach

Francis Rizzo
Head Coach of Women's Cross-Country, Track & Field

Jamie Schneck
Women's Soccer Head Coach/SAAC Coordinator/Transportation Coordinator

Sean Sloane
Men's Tennis Head Coach

Christopher Spencer
Men's & Women's Fencing Head Coach

Cory Walts
Fitness Center Director/ Strength and Conditioning Head Coach

Lauren Wray
Women's Lacrosse Head Coach/Intercollegiate Scheduling Coordinator

BIOCHEMISTRY AND BIOPHYSICS

haverford.edu/biochemistry-biophysics

Much of today's scientific effort is directed toward an understanding of biological processes from the physical and chemical points of view. Curricular initiatives at Haverford, begun as a result of a grant from the Howard Hughes Medical Institute, led to the development of biologically oriented courses of study in the chemistry and physics departments. The concentration in biochemistry and biophysics (haverford.edu/biochemistry-biophysics) recognizes enduring trends in interdisciplinary science, by establishing in the curriculum a formal program of classroom and laboratory training at the interface between the physical and biological sciences.

To be a member of the concentration, a student must major in one of the three sponsoring departments: biology, chemistry, or physics. The student's transcript may record the concentration as one in biochemistry, biophysics, or biochemistry/biophysics, depending on the program of study. However, students may not obtain both a chemistry minor and a biochemistry concentration, and they may not obtain both a physics minor and a biophysics concentration.

CURRICULUM

BIOCHEMISTRY AND BIOPHYSICS REQUIREMENTS

To earn an Area of Concentration, a student must complete an interdisciplinary course of study beyond the requirements of a single natural science department. We describe below only the four more popular programs of study within the concentration. Students interested in other options, such as a concentration in both biochemistry and biophysics, should consult with the faculty representatives listed above to design a course of study encompassing the required courses and any proposed substitutions.

Note: All concentrators must also complete a major in biology, chemistry or physics. This requires course–work in the student's major department in addition to what is outlined below.

BIOCHEMISTRY/BIOPHYSICS CORE CURRICULUM (REQUIRED OF ALL):

- BIOL 200 (cell structure and function; full year course).
- One semester of BIOL 300 (laboratory in biochemistry and molecular biology, cross-listed as CHEM 300) or BIOC 390 (Laboratory in Biochemical Research)
- CHEM 112 (chemical dynamics) or former courses 101 or 105.
- One semester Mathematics course numbered 114 (calculus II) or higher.
- PHYS 101–102 or 105–106 (introductory physics), or the Bryn Mawr equivalents.

If students do not take these courses at Haverford or Bryn Mawr, they must have the substitute course(s) approved for college credit by the relevant departments. Beyond this foundation, students must take the following advanced interdisciplinary coursework:

BIOLOGY MAJOR WITH A BIOCHEMISTRY CONCENTRATION:

Biology majors seeking a Biochemistry Concentration must complete the Biochemistry/Biophysics core curriculum (see above) as well as the following additional requirements:

- CHEM 111 (Chemical Structure and Bonding) or 115, 112 (Chemical Dynamics), CHEM 222 and 225 (Organic Chemistry)
- CHEM 304 (Statistical Thermodynamics and Kinetics) or 305 (Quantum Chemistry)
- CHEM 301 or 302 (Laboratory in Chemical Structure and Reactivity) or BIOC 390 (Laboratory in Biochemical Research).
- Two half-semester advanced courses from the following list: CHEM 351 (Bioinorganic

Chemistry), 352 (Topics in Biophysical Chemistry), 357 (Topics in Bioorganic Chemistry) and 359: Topics in Protein Chemistry; majors may take topics courses multiple times with different topics

• Two half-semester courses from the following list: BIOL 301 (Genetics), 302 (Cell Architecture), 303 (Structure and Function of Macromolecules), 304 (Biochemistry: Metabolic Basis of Disease), 306 (Inter- and Intra-Cellular Communication), 308 (Immunology), 310 (Molecular Microbiology, 314 (Photosynthesis), 351 (Molecular Motors and Biological Nano-Machines); 357 (Topics in Protein Science); and 371 (Toxins and Ancient Immunity). Students may use courses meeting concentration requirements for the biology major in lieu of one semester of Biology 300.

BIOLOGY MAJOR WITH A BIOPHYSICS CONCENTRATION:

Biology majors seeking a Biophysics Concentration must complete the Biochemistry/ Biophysics core curriculum (see above) as well as the following additional requirements:

• MATH 121 (Calculus III) or 216 (Advanced Calculus)

• PHYS 213 (Waves and Optics), 211 (Laboratory in Electronics, Waves and Optics); half-credit course), and 301 (Advanced Laboratory in Modern Physics)

• PHYS 214 (Quantum Mechanics) or CHEM 305 (Quantum Chemistry)

• PHYS 303 (Statistical Physics) or CHEM 304 (Statistical Thermodynamics and Kinetics)

• A 300-level course in biophysics approved by the concentration coordinating committee

• Two half-semester courses from the following list: BIOL 301 (Advanced Genetic Analysis), 302 (Cell Architecture), 303 (Structure and Function of Macromolecules), 304 (Biochemistry: Metabolic Basis of Disease), and 306 (Inter- and Intra-Cellular Communication), 308 (Immunology), 310 (Molecular Microbiology, 314 (Photosynthesis), 351 (Molecular Motors and Biological Nano-Machines); 357 (Topics in Protein Science); and 371 (Toxins and Ancient Immunity). Students may use courses meeting concentration requirements for the biology major in lieu of one semester of BIOL 300.

CHEMISTRY MAJOR WITH A BIOCHEMISTRY AREA OF CONCENTRATION:

Chemistry majors desiring a Biochemistry Area of Concentration must complete the Biochemistry/Biophysics core curriculum (see above) as well as the following additional requirements:

• Two half-semester courses from the following: CHEM 351 (Bioinorganic Chemistry), 352 (Topics in Biophysical Chemistry), 357 (Topics in Bioorganic Chemistry) and 359: Topics in Protein Chemistry. Majors may take topics courses multiple times with different topics.

• Two half-semester courses from the following list: BIOL 301 (Genetics), 302 (Cell Architecture), 303 (Structure and Function of Macromolecules), 304 (Biochemistry: Metabolic Basis of Disease), 306 (Inter- and Intra-Cellular Communication), 308 (Immunology), 310 (Molecular Microbiology, 314 (Photosynthesis), 351 (Molecular Motors and Biological Nano-Machines); 357 (Topics in Protein Science); and 371 (Toxins and Ancient Immunity). Students may use courses meeting concentration requirements for the chemistry major in lieu of CHEM 301 or 302.

PHYSICS MAJOR WITH A BIOPHYSICS AREA OF CONCENTRATION:

Physics majors desiring a Biophysics Area of Concentration must complete the Biochemistry/ Biophysics core curriculum (see above) as well as two half-semester courses from the following list: Two half-semester courses from the following list: BIOL 301 (Genetics), 302 (Cell Architecture), 303 (Structure and Function of Macromolecules), 304 (Biochemistry: Metabolic Basis of Disease), 306 (Inter- and Intra-Cellular Communication), 308 (Immunology), 310 (Molecular Microbiology, 314 (Photosynthesis), 351 (Molecular Motors and Biological Nano-Machines); 357 (Topics in Protein Science); and 371 (Toxins and Ancient Immunity).

Students may use 300-level biology courses meeting concentration requirements for the physics major in lieu of one or two of the six required 300-level physics courses.

FACULTY

Karin Åkerfeldt
Professor of Chemistry

Fran Blase
Associate Professor of Chemistry

Louise Charkoudian
Assistant Professor of Chemistry

Robert Fairman
Professor of Biology

Suzanne Amador Kane
Associate Professor of Physics

Casey H. Londergan
Associate Professor of Chemistry

Judith Owen
Elizabeth Ufford Green Professor of Natural Sciences and Professor of Biology

Robert C. Scarrow
Professor of Chemistry

Walter F. Smith
Professor of Physics

BIOLOGY
haverford.edu/biology

The Biology department has earned national acclaim for its longstanding commitment to the integration of teaching and research, and is distinguished by its curricular focus on cellular and molecular biology. Through active research programs, funded by organizations such as the National Science Foundation and the National Institutes of Health, our professors engage undergraduates directly in exploring cutting-edge questions in the field of biology. By combining traditional classroom and laboratory teaching with original research endeavors, the department develops a community of young scholars who are conversant in the advances that make biology the fastest-growing science of the 21st century.

Students completing a major in biology at Haverford will be able to:
• Work both independently and collaboratively
• Understand fundamental concepts in modern biology
• Integrate knowledge and experimental approaches from multiple scientific disciplines such as chemistry, physics, mathematics, and geology
• Read, understand, and critique the primary scientific literature
• Interpret and analyze scientific data
• Design and conduct hypothesis-driven research
• Troubleshoot experimental approaches
• Integrate new knowledge into a framework that advances understanding
• Communicate scientific ideas and concepts, both orally and in writing
• Understand and practice ethical conduct in scientific inquiry.

Located in the Marian E. Koshland Integrated Natural Sciences Center (KINSC), the Biology department maintains close interdisciplinary ties with the Chemistry, Physics, Math, Computer Science and Psychology departments.

MAJOR

Students who wish to major in biology enter the department in their second year, building on a first-year natural science experience. Students take the sophomore introductory course, "Cell Structure and Function," followed by four lecture courses in the junior year that explore fundamental areas in cell and molecular biology. Juniors also engage in a unique, year-long laboratory course (BIOL 300A and BIOL 300B. "Superlab"), in which they employ contemporary techniques to answer biological questions, often ones they have not previously studied in detail.

In their senior year, majors read and critique the current biological literature in a senior seminar class in which they practice presenting and defending the work of other laboratories to a classroom of their peers and faculty.

MAJOR REQUIREMENTS

• One-credit natural science course + lab
• BIOL 200A & BIOL 200B
• One-credit chemistry course (+ lab)
• One 200-level or higher course in a natural sciences department other than Biology
• BIOL 300A & BIOL 300B
• Four half-semester 300-level advanced topics courses (BIOL 301–315 and 331–332).
(We encourage students to take additional topics classes beyond the minimum of four to enhance their biology experience.)
• One half-semester 350-level seminar course in the Haverford Biology department (chosen from BIOL 350365).
(Students may take additional seminar courses to enrich their knowledge of the discipline.)
• Two 400-level Senior Research Tutorial credits, generally taken over both semesters of the senior year, including active participation in weekly lab meetings and submission of a notebook and a thesis describing the progress and results of the project
• BIOL 499, "Senior Department Studies"

In addition to the required courses, the Biology department strongly recommends a year of physics, a course in probability and statistics, and advanced coursework in chemistry (through Physical Chemistry or equivalent).

CONCENTRATIONS

In these interdisciplinary programs, a student may major in Biology and take an enhanced selection of courses to fulfill the requirements of the major plus their concentration or minor. Visit the Biology department website (haverford.edu/biology/) for more information about concentrations and minors.

INTERDISCIPLINARY PROGRAMS

Haverford Biology majors have opportunities to pursue studies that cross-departmental boundaries. Students may combine the Biology major with the following concentrations and minors:

• Concentrations: biochemistry and biophysics; neural and behavioral sciences, scientific computing
• Minors: neuroscience, environmental studies, health studies

RESEARCH

SENIOR RESEARCH

The Senior Research program is the capstone of the Haverford major in Biology. The Biology department provides every major with the opportunity to work directly with our faculty on original research projects. Four to six students work with each professor in his or her area of expertise, be it cell biology, genetics, immunology, microbiology, neurobiology, developmental biology, or protein biochemistry. Senior research can account for as much as half of a student's senior courses, and faculty frequently include students as co-authors of publications and often students to travel with them to national meetings. A tradition in the Biology department, this close research partnership between students and faculty distinguishes Haverford from larger institutions, where undergraduates are less likely to have the responsibility for driving original research efforts.

SUMMER RESEARCH

The KINSC is the nucleus of a vital summer research program, where faculty members from across the sciences engage students on supervised but independent research projects. Full-time work in the lab permits students to make significant contributions to on-going research. Many students pursue summer research off campus and bring their experiences back to their Haverford Senior Research laboratory, further enriching a diverse curriculum. We encourage all students to present their summer work at an annual interdisciplinary poster session in the fall, and all seniors present a public talk and poster on their research in their senior year.

FACILITIES

The Biology department enjoys exceptional resources and maintains many sophisticated pieces of equipment for use in the teaching and research laboratories including:

• Transmission Electron Microscope (TEM)
• Scanning Electron Microscope (SEM)
• Confocal microscope
• FACSAria flow cytometer
• FACSCalibur flow cytometer
• Li-COR Li-6400XT portable photosynthesis system
• Circular dichroism spectropolarimeter
• HPLC and FPLC chromatographs
• PCR machines
• Analytical ultracentrifuge and high-speed centrifuges
• ELISA readers
• Sensitive, high-resolution CCD camera-equipped fluorescent microscopes and imaging workstations

We have recently created an online page describing our new Haverford Cell and Molecular Imaging Facility (https://sites.google.com/site/kinscmolecandcellimg/home), which also provides links to protocols and a signup calendar for instrument usage.

All teaching and research labs contain desktop computers that are wired into the campus network, facilitating reference and data analysis during labs. The department also supports controlled environment spaces and facilities for tissue culture, animal care and advanced computational modeling.

FACULTY

Philip Meneely
Chair and Professor

Robert Fairman
Professor

Rachel Hoang
Associate Professor

Karl Johnson
Professor

Iruka Okeke
Professor

Judith A. Owen
Elizabeth Ufford Green Professor of Natural Sciences

Jon Wilson
Assistant Professor

COURSES

119 PERSPECTIVES IN NEUROLOGICAL RESEARCH

Michael Grider
The scientific and ethical implications of neuroscience research. The course considers technological advancements that allow analysis of brain and neuronal functions in both disease and normal cognitive states.

120 PERSPECTIVES ON BIOLOGY: DRUGS

The development and impact of six common pharmaceutical drugs. It is becoming increasingly important to be able to understand health care treatment options in today's American society. As a result, this class seeks to explore the pharmaceutical sciences, and the common misunderstandings surrounding drugs and the pharmaceutical industry. Specifically, we focus on the biological mechanisms, history, and societal impact surrounding the six most influential pharmaceuticals of our time: antibiotics, analgesics, anesthetics, insulin, vaccines, and hormonal contraceptives. In addition, we discuss the controversies surrounding these drugs, such as the rise of antibiotic resistant strains of bacteria, the recent popularization of the anti-vaccine movement, and the implications of these controversies for society as a whole.

121 POISONS AND PLAGUES

Justin A. Melo
This class focused on the various nodes of intersection between poisons—found in nature and man-made—and the history of human misery. We review the catastrophic effects on human physiology of the plagues that have cycled through our population every few decades, often decimating our numbers as a species. We also discuss the modes of poisoning contrived of our own making, such as the Gulf of Mexico oil spill of 2010 and subsequent mop-up effort. We envisage future scenarios in which our species will have to face the action of poisons and plagues, and the various defense strategies our bodies (and our technology) will deploy in hopes of survival.

200 CELL STRUCTURE AND FUNCTION

Iruka Okeke, Philip M. Meneely, Katherine P. Heston, Judith Anne Owen, Justin A. Melo, Karl A. Johnson
Three hours of lecture and one laboratory period per week. A one-year course in cellular and molecular biology. Biology 200 considers the cell as a unit of biological activity. There is an introduction to the major macromolecules of the cell which includes a discussion of their synthesis and breakdown and a section on the gene as a unit of biological information and the flow and transmission of genetic information. The laboratory introduces the student to cell and molecular biology, biochemistry and genetics. Enrollment per lab section is limited to 28. Preference for a specific lab section will be given to students preregistering for that lab section; students who do not preregister will be assigned on a space available basis. Prerequisite: The prerequisite for Biology 200a is successful completion, with a grade of 2.0 or higher, of a one credit Natural Science course (which includes a laboratory experience) at Haverford, Bryn Mawr, or Swarthmore. The prerequisite for Biology 200b is successful completion of Biology 200a with a grade of 2.0 or higher, or consent of the instructor.

217 BIOLOGICAL PSYCHOLOGY

Mary Ellen Kelly

220 UNLOCKING KEY CONCEPTS IN BIOLOGY

Rachel Hoang, Justin A. Melo
A course for Bio 200 students designed to teach the principles and methods of biological

investigation. Students learn how to identify, develop, and test biological hypotheses are and how to articulate, analyze, and interpret biological data. The class meets once a week during the semester and draws material from current literature, groundbreaking classical experiments and concurrent topics in Bio 200. Enrollment by invitation from the department.

300 LABORATORY IN BIOCHEMISTRY AND MOLECULAR BIOLOGY

Iruka Okeke, Judith Anne Owen, Karl A. Johnson, Michael Grider, Rachel Hoang, Philip M. Meneely

One lecture and two laboratory periods per week. An introduction to the application of modern experimental approaches in the study in interesting biological questions. Techniques employed are drawn from: cloning and nucleic acids (DNA and RNA) manipulation, including polymerase chain reaction (PCR) and site-directed mutagenesis; protein expression, purification and characterization, with emphasis on circular dichroism and fluorescence spectroscopy; immunofluorescence, confocal and electron microscopy; and fluorescence-activated cell sorting (FACS) analysis. Enrollment limited to 40 (20 per section). Preference for a specific lab section goes to students preregistering for that lab section; students who do not preregister will be assigned on a space available basis. Prerequisite: Successful completion of Biology 200a,b with grades of 2.0 or higher, or consent of the instructor.

301 ADVANCED GENETIC ANALYSIS

Philip M. Meneely

The molecular mechanisms governing the transmission, mutation, and expression of genes. Particular emphasis is placed on the use of experimental genetic methods to analyze other areas of biology.

302 CELL ARCHITECTURE

Karl A. Johnson

306 INTER- AND INTRA-CELLULAR COMMUNICATION

Justin A. Melo

A study of the mechanisms by which individual cells in a multicellular organism communicate via the exchange of molecular signals. The course focuses on the release of molecular messengers and their interactions with specific receptor-bearing target cells of appropriate responses, such as increased metabolic activity and/or cell division. We pay considerable attention to the biochemistry of plasma and internal cell membranes and discuss pathways from a disease perspective.

308 IMMUNOLOGY

Judith Anne Owen

This course introduces the rapidly expanding discipline of immunology. Students learn about the molecular and cellular basis of the immune response through the study of the genetics and biochemistry of antigen receptors, the biochemistry of immune cell activation, the cell physiology of the immune system, immune memory, immune tolerance induction, and immune-mediated cell death.

312 DEVELOPMENT AND EVOLUTION

Rachel Hoang

This course introduces important links between developmental and evolutionary biology. Genetic changes that produce variations between organisms are an important aspect of evolutionary change. Since development can be viewed as the process that links genetic information to the final form of an organism, the fields of development and evolution clearly impact one another. We look at Drosophila and zebrafish, where developmental mechanisms have been elucidated in remarkable detail. We then look beyond these model systems to comparative studies that examine development in a range of organisms, considering how these provide insight into evolutionary mechanisms, and how underlying differences in development may account for the differences we see between organisms.

350 PATTERN FORMATION IN THE NERVOUS SYSTEM

Michael Grider

A fundamental process in the development of the vertebrate nervous system is the partitioning of nervous system into distinct domains of cellular differentiation, for example the brain vs. the spinal cord. This seminar course explores, through a series of student research article presentations, the molecular processes by which pattern is established in the nervous system and the morphological consequences of improper patterning. We use human birth defects and pathologies such as spina bifida and brain

tumors as case studies to discuss the role of crucial patterning genes and signaling molecules. Enrollment limited to 15 students.

352 CELLULAR IMMUNOLOGY

Judith Anne Owen

Topics include description and classification of the cells and tissues of the immune system; cell collaboration in the immune response; transplantation antigens and their role in graft rejection and recognition of virally-infected cells; immune tolerance; lymphokines. Student presentations of articles in the original immunological literature are followed by critical discussion. Enrollment limited to 15 students.

354 MOLECULAR VIROLOGY

Brian DeHaven

This course focuses on the study of virus structure, genome organization, replication, and interactions with the host. We highlight many different families of viruses, with an emphasis on those that infect humans, and incirporate specific viruses, especially those of clinical importance, as models within each family.

390 LABORATORY IN BIOCHEMISTRY RESEARCH

Louise Charkoudian, Robert Fairman

An introduction to the laboratory concepts and techniques at the chemistry-biology interface including: molecular cloning, protein purification, biophysical spectroscopy, molecular modeling, and biochemical assays.

402 SENIOR RESEARCH TUTORIAL: GENETICS AND MEIOSIS

Philip M. Meneely

This course studies the principles and mechanisms by which the chromosome number is reduced and segregated during the production of gametes in the nematode Caenorhabditis elegans (C. elegans). We use genetic, molecular, and microscopic methods to isolate and examine mutant strains that fail to execute meiosis properly. Students supplement laboratory work with readings from the current literature on meiosis and C. elegans.

403 SENIOR RESEARCH TUTORIAL: PROTEIN FOLDING

Robert Fairman

The laboratory focuses on protein folding and design, with a particular emphasis on the use of proteins in nanoscience. Students have the opportunity to apply chemical and genetic approaches to the synthesis of proteins for folding and design studies. Such proteins are characterized in the laboratory using biophysical methods (such as circular dichroism spectroscopy, analytical ultracentrifugation, and atomic force microscopy). Functional and structural approaches can also be applied as necessary to answer specific questions relating to protein science. Students supplement laboratory work with readings in the original literature.

404 SENIOR RESEARCH TUTORIAL: MOLECULAR MICROBIOLOGY

Iruka Okeke

Studies in bacterial genetics and pathogenesis. Molecular methods will be used to identify and characterize features of diarrhea-causing Escherichia coli that are absent in commensal strains. Students supplement laboratory work with readings from current literature.

407 SENIOR RESEARCH TUTORIAL: BIOARCHITECTURE

Karl A. Johnson

Studies of structure in living systems and applications in nanotechnology. Approaches employed include genetic analysis, biochemistry, biophysics, molecular biology, microscopy and imaging, bioengineering, and synthetic biology. Students supplement laboratory work with readings from the current literature.

409 SENIOR RESEARCH TUTORIAL: MOLECULAR NEUROBIOLOGY

Michael Grider

The developing nervous system of vertebrate embryos rapidly becomes patterned into distinct domains of neural cell differentiation. We employ a variety of molecular screening techniques to identify what genes are responsible for the establishment of this pattern. We then determine the expression pattern of these genes by in situ hybridization and analyze their function in vivo and in vitro, using microinjection and biochemical assays. Students supplement laboratory work with readings from the current literature.

410 SENIOR RESEARCH TUTORIAL: OFF-CAMPUS RESEARCH LABS

Judith Anne Owen

Students conduct research in an area of cell, molecular, or development biology under the supervision of a member of a nearby research

laboratory who has volunteered time and space for a Haverford student. All students enrolled in Biology 410 must have designated on-campus and off-campus supervisors.

411 SENIOR RESEARCH TUTORIAL: ON THE CONTROL OF CELL SHAPE—MOLECULAR AND EVOLUTIONARY APPROACHES

Rachel Hoang

All embryos undergo a series of highly elaborate cell movements to produce their final shape and form. Understanding the molecular basis of these movements provides important insight into the underlying molecular mechanisms and enables us to ask how changes in these mechanisms give rise to differences between organisms. Students therefore approach this subject from both molecular and evolutionary perspectives. Using the fruit fly as a model system, we look inside cells to ask how intricate changes to the cytoarchitecture of individual cells drive movements of entire layers of cells. We hope to further understand how these same developmental processes go awry in situations of human disease (e.g. cancer metastasis). We also examine cell movements in a variety of insects to ask how the developmental mechanisms themselves evolve and change. Projects draw on a variety of techniques including cell and molecular biology, embryology, genetics, genomics, and cell imaging. Students supplement laboratory work with readings from the current literature.

412 SENIOR RESEARCH TUTORIAL: HEMATOPOIETIC STEM CELL BIOLOGY

Brian DeHaven

The development and maintenance of vertebrate blood is tasked to rare quiescent multipotent hematopoietic stem cells, which must balance programs for self-renewal and differentiation. This balance is determined both intrinsically through a number of different signaling pathways, including the NF-Y transcription factor, and extrinsically by the microenvironmental niche in which they reside. We employ a combination of cellular and molecular techniques to investigate these two aspects of hematopoietic stem cell regulation. Laboratory work is supplemented with readings from the current literature.

414 SENIOR RESEARCH SEMINAR: SENIOR RESEARCH TUTORIAL IN TOXIN AND INNATE IMMUNE DEFENSE IN ANIMALS

Justin A. Melo, Judith Anne Owen

480 INDEPENDENT STUDY

Michael Grider, Iruka Okeke

499 SENIOR DEPARTMENTAL STUDIES

Michael Grider

Participation in the department's Philip's Visitors Program; attendance at seminars by visiting speakers; senior seminar meetings, consisting of presentation and discussion of research plans and research results by students and faculty; and students' presentations of papers on contemporary developments in experimental biology.

CHEMISTRY
haverford.edu/chemistry

Haverford's Chemistry department (haverford.edu/chemistry) serves students who are pursuing chemistry for a variety of professional reasons or simply to increase their knowledge of the natural sciences. This field of study seeks to prepare students given the a growing need for educators, lawyers, entrepreneurs, policy makers, and scientists in diverse fields that have a solid understanding of chemical principles.

RESEARCH

Research is the characteristic activity of chemists, and the Chemistry department believes that students should be involved in research as part of their chemical education. A senior research thesis is required of all chemistry majors. Research allows students to discover and develop creativity and independence, which the well-structured programs of the formal courses do not always adequately address. Students at any level of the curriculum can obtain research experience through paid summer internships or by enrolling in research tutorial courses during the academic year, and a number of majors do both. Typically, the chemistry faculty offers about 25–30 paid research positions per summer. Chemistry majors who wish to work elsewhere for the summer are quite successful at securing summer research positions in university, government, and industrial chemical laboratories.

CURRICULUM

Courses in "Chemical Structure and Reactivity" and Organic chemistry provide a broad introduction to the discipline as one of the liberal arts. They also serve as a foundation for both the chemistry and biology majors, and they provide the chemistry and laboratory experience required for medical school admission. The department offers a variety of entry points into the introductory courses, depending on a student's preparation from high school. Faculty members teach the intermediate- and upper-level chemistry courses in their area(s) of expertise.

MAJOR

The curriculum is approved by the American Chemical Society (ACS), and students may obtain an ACS-certified degree in chemistry. The major requirements are flexible enough that students are able to study abroad for one or two semesters if they so desire. Typically, several junior chemistry majors study abroad each year. Chemistry majors can design a program directed toward interdisciplinary areas of study, such as chemical physics, computational chemistry, materials science or biological chemistry, or to one of the traditional areas: organic, physical, or inorganic chemistry.

The formal laboratory component of the upper-level curriculum consists of a year-long "Laboratory in Chemical Structure and Reactivity" (which the students have nicknamed "Superlab"). In this course, junior chemistry majors work together in multi-week projects adapted from the current chemical research literature that teach them the timely and relevant areas of inquiry in the discipline as well as the many techniques used in modern chemical research.

MINOR AND CONCENTRATION

Haverfordalso offers a minor in Chemistry. About one- half of all chemistry majors also obtain an area of concentration in Biochemistry. Majors may also pursue a concentration in Scientific Computing or minor in Environmental Studies.

FACILITIES

The east wing of the Marian E. Koshland Integrated Natural Sciences Center (KINSC) houses the Chemistry department. The space provides ample, well-ventilated instructional laboratories and separate laboratories designed to support student-faculty research. Designed to encourage interdisciplinary interactions among students and faculty, the KINSC includes computer clusters, a machine shop, a library, and a large study area, serving all natural science departments.

The department maintains state-of-the-art research instrumentation used in both research and in teaching laboratory courses. Students learn to use these instruments in the introductory courses, and then they use them frequently in the "Superlab" courses and in their research. Instruments and facilities used by students include:

• Nuclear magnetic resonance (NMR) spectrometer used to determine the structure of molecules
• Automated peptide synthesizer
• Laser laboratory with several different lasers and detection systems used for spectroscopy and fast (nanosecond) kinetic studies of molecules in gas and solution phases
• Powder X-ray Diffractometer
• Two Mass Spectrometers connected to a gas chromatograph and to a high pressure liquid chromatograph

Five staff members aid in teaching and the operation of research laboratories: Joanne Brown, the department budget administrator; Kelly Matz, Mark Stein, and Mike Kukla, the instructional laboratory supervisors; and Dan Fabry, our instrument specialist.

THE WILLIAM PYLE PHILIPS DISTINGUISHED VISITOR PROGRAM

This program brings chemists of international distinction to Haverford each year for one- or two-day visits. Some Philips visitors have been Nobel laureates in chemistry. Students have many opportunities, typically including a dinner, to meet with the Philips visitors to talk about chemistry research and professional career paths.

AFTER GRADUATION

About one third of Haverford's chemistry majors enter top-ranked graduate programs leading to a Ph.D., and another third enter medical school after graduation. The remaining third of Haverford's chemistry majors usually elect to take jobs after graduation and obtain challenging and rewarding positions as teachers, laboratory scientists, and information specialists, among other professions.

FACULTY RESEARCH

Typically two to six students work in each faculty member's laboratory during any given semester or summer. Student and faculty research in the department is supported by grants from the National Science Foundation, the National Institutes of Health, the Howard Hughes Medical Institutes, and several other sources. Students and faculty from the chemistry department publish their research findings in top tier peer-reviewed journals.

FACULTY

Karin S. Åkerfeldt
Bioorganic Chemistry: delineating structure function relationships in proteins; protein design.

Frances Rose Blase
Synthetic Organic Chemistry: synthesis of medically relevant natural products.

Lou Charkoudian
Bioorganic Chemistry: Elucidation of bacterial biosynthetic mechanisms; developing environmentally responsible chemical tools for organic syntheses.

Casey Londergan
Biophysical Chemistry: observing protein dynamics by vibrational spectroscopy.

Alexander J. Norquist
Materials Chemistry: crystal growth of organically templated transition metal oxides.

Robert C. Scarrow
Bioinorganic Chemistry: Synthetic chemical models of the role of metal ions in the oxygenation and hydrolytic reactions catalyzed by metalloenzymes.

Joshua Schrier
Theoretical Chemistry: electronic, optical, and mechanical properties of nanostructures.

Helen K. White
Environmental Chemistry: investigating sources, sinks and cycling of organic compounds in the environment.

COURSES

111 CHEMICAL STRUCTURE AND BONDING

Joshua Schrier

Structure and bonding in molecules starting from nuclear and electronic structure of atoms. This course introduces the theories of chemical bonding that rationalize and predict the structures and bulk properties of molecules and materials. It also introduces modern instrumental and computational methods used to study chemical structure and bonding.

112 CHEMICAL DYNAMICS

Alexander Norquist, Casey Londergan

An introduction to chemical thermodynamics, equilibrium, electrochemistry and kinetics. Microscopic properties are used to develop basic chemical concepts of energy, enthalpy, entropy, and the Gibbs Energy, and their applications to thermochemistry, equilibria, and electrochemistry. Chemical kinetics, reaction mechanisms, and applications to chemical problems are also discussed.

115 CHEMICAL STRUCTURE INQUIRY LAB

Alexander Norquist

Three lectures, one lab period, and one laboratory planning meeting each week. In the lab, students will become acquainted with modern methods of chemical structure analysis as they discover the identity of unknown compounds via self-proposed experiements.

150 INTRODUCTION TO OCEANOGRAPHY

Helen K. White

The oceans are one of the principal agents controlling global change, and are linked to nearly all of the biological, chemical, geological, and ecological systems on our planet's surface. In this course we will examine these systems and the impact of humans upon them. Enrollment Limit: 50. Preference given to Environmental Studies minors; 10 seats reserved for freshmen.

222 ORGANIC BIOLOGICAL CHEMISTRY

Louise Charkoudian, Mark Stein

Survey of organic chemistry reactions in an aqueous environment, highlighting transformations important for understanding the properties and reactivity of biomolecules in the cell, with emphasis on functional groups, acids and bases, chirality, energetics, reaction mechanisms, enzyme inhibitors, and drug design.

225 ORGANIC SYNTHESIS

Frances R. Blasé, Michael Kukla, Robert L. Broadrup

This course explores organic reactions in mechanistic detail, and highlight their use in the syntheses of complex organic molecules. It concentrates on functional group transformations and then delves into organometallic and enantioselective reactions for use in complex syntheses.

261 RESEARCH IN PHYSICAL CHEMISTRY

Casey Londergan

One-half credit course for the year designed for students interested in the chemistry research experience in physical chemistry, condensed phase chemical physics, and biophysical chemistry, with emphasis on spectroscopic studies of peptides and proteins. (Not open to seniors.)

262 RESEARCH IN THEORETICAL CHEMISTRY

Joshua Schrier

One-half credit course for the year designed for students interested in the chemistry research experience in theoretical physical chemistry, with emphasis on methods for prediction of optical, electronic, and mechanical properties of organic and inorganic semiconductor nanostructures. (Not open to seniors.)

263 RESEARCH IN ORGANIC CHEMISTRY

Frances R. Blase

One-half credit course for the year designed for students interested in the chemistry research experience in synthetic organic chemistry and physical-organic chemistry. Topics include total synthesis of biologically significant molecules, new methods of enantioselective synthesis, and the study of organic reaction mechanisms. (Not open to seniors.)

264 RESEARCH IN BIOORGANIC CHEMISTRY

Karin Akerfeldt

One-half credit course for the year designed for students interested in the chemistry research experience in protein structure-function relationship studies and the design and synthesis of a broad range of peptides, proteins and biologically inspired novel materials. (Not open to seniors.)

265 RESEARCH IN BIOINORGANIC CHEMISTRY
One-half credit course for the year designed for students interested in the chemistry research experience in spectroscopic and kinetic studies of metalloproteins and inorganic coordination compounds. (Not open to seniors.)

267 RESEARCH IN BIOLOGICAL CHEMISTRY
Louise Charkoudian

268 RESEARCH IN ENVIRONMENTAL CHEMISTRY
Helen K. White
One-half credit course for the year designed for students interested in the chemistry research experience in the field of biogeochemistry, a multidisciplinary approach focused at understanding the chemical composition and processes of Earth's biosphere. (Not open to seniors.)

269 RESEARCH TUTORIAL IN MATERIALS SCIENCE
Alexander Norquist
One-half credit course for the year designed for students interested in the chemistry research experience in the synthesis and structural characterization of organically templated microporous materials. (Not open to seniors.)

300 LABORATORY IN BIOCHEMISTRY AND MOLECULAR BIOLOGY
Iruka Okeke, Judith Anne Owen, Karl A. Johnson, Rachel Hoang
One lecture and two laboratory periods per week. An introduction to the application of modern experimental approaches in the study in interesting biological questions. Techniques employed are drawn from: cloning and nucleic acids (DNA and RNA) manipulation, including polymerase chain reaction (PCR) and site-directed mutagenesis; protein expression, purification and characterization, with emphasis on circular dichroism and fluorescence spectroscopy; immunofluorescence, confocal and electron microscopy; and fluorescence-activated cell sorting (FACS) analysis. Enrollment limited to 40 (20 per section). Preference for a specific lab section goes to students preregistering for that lab section; students who do not preregister will be assigned on a space available basis. Prerequisite: Successful completion of Biology 200a,b with grades of 2.0 or higher, or consent of the instructor.

301 LABORATORY IN CHEMICAL STRUCTURE
Frances R. Blase
Two lectures and two laboratory periods. An introduction to the methods of research in chemistry. Inorganic, organic, physical chemistry, computational chemistry, and biochemical concepts are integrated in a broad laboratory study of structure and its relationship to chemical reactivity. Physical methods are used in studies of organic, inorganic, and biochemical reactions. Chemical synthesis and the modern methods of computation and instrumental analytical chemistry are particularly stressed.

302 LABORATORY IN CHEMICAL STRUCTURE AND REACTIVITY
Helen K. White, Karin Akerfeldt
Two lectures and two laboratory periods. An introduction to the methods of research in chemistry. Inorganic, organic, physical chemistry, and biochemical concepts are integrated in a broad laboratory study of structure and its relationship to chemical reactivity. Physical methods are used in studies of organic, inorganic, and biochemical reactions. Chemical synthesis and the modern methods of instrumental analytical chemistry are particularly stressed. Instruments such as lasers, the 500 MHz NMR spectrometer, and the mass spectrometer combined with either gas or liquid chromatography are used by students, with faculty supervision.

304 STATISTICAL THERMODYNAMICS
Casey Londergan
Three lectures. A quantitative approach to the description and prediction of behavior in chemical systems. Topics to be covered include: introductory quantum mechanics and energy in molecules, statistical mechanics and energy partitioning, thermodynamics of molecules and larger systems, physical and chemical equilibrium, and chemical kinetics. Systems of interest range from single molecules to complicated condensed-phase macromolecular assemblies; specific experimental examples of single-molecule observation, phase changes in lipids and liquid crystals, and observations of protein folding are discussed in the context of the course material.

305 PHYSICAL CHEMISTRY II
Joshua Schrier
Two lectures. The quantum theory of atoms and molecules as applied to problems in molecular structure, computational chemistry, and basic spectroscopic techniques. Emphasis on computer-based solutions and visualization.

320 CONCEPTS OF INORGANIC CHEMISTRY
Casey Londergan
Three lectures for one-half semester (one-half course credit). An introduction to structure and reactivity of inorganic molecules and materials. Topics include: theories of chemical bonding, symmetries of molecules and solid state materials, acid-base, oxidation-reduction reactions, and structures and nomenclature of coordination complexes.

340 MOLECULAR SPECTROSCOPY
Casey Londergan
Quantum mechanical description of current techniques in the spectroscopy of molecules.

351 BIOINORGANIC CHEMISTRY
Casey Londergan
Three lectures for one-half semester (one-half course credit). Topics include biological cells that require metals such as zinc, iron, copper, manganese, and molybdenum; metal-binding abilities of various functional groups within proteins and nucleic acids, metal-based reactivity involved in reaction mechanisms of specific metalloenzymes, and medically relevant topics such as bioaccumulation and storage of metal ions, the toxicity of heavy metals, and use of metal-containing drugs in treating disease.

352 TOPICS IN BIOPHYSICAL CHEMISTRY
Arthur G. Palmer
This course introduces the principles of modern multidimensional NMR spectroscopy as applied to biological macromolecules, focusing on proteins. Theoretical and experimental aspects of NMR spectroscopy for structure determination, investigation of kinetic rate processes, and characterization of molecular interactions will be discussed.

353 TOPICS IN MATERIAL SCIENCE
Joshua Schrier

355 TOPICS IN ADVANCED ORGANIC CHEMISTRY

357 TOPICS IN BIOORGANIC CHEMISTRY
Karin Akerfeldt, Louise Charkoudian
The specific content of the course varies, depending on faculty and student interests. The course will focus on organic chemistry as applied to biological systems and related topics.

361 RESEARCH IN PHYSICAL CHEMISTRY
Casey Londergan
Directed research in physical chemistry, condensed phase chemical physics, and biophysical chemistry, with emphasis on spectroscopic studies of site-specific environmental and conformational dynamics in peptides and proteins.

362 RESEARCH IN THEORETICAL CHEMISTRY
Joshua Schrier
Directed research in computational and theoretical physical chemistry, with emphasis on development and application of methods for prediction of optical, electronic, and mechanical properties of organic and inorganic semiconductor nanostructures.

363 RESEARCH TUTORIAL: ORGANIC CHEMISTRY
Frances R. Blase
Directed research in synthetic organic chemistry, and physical-organic chemistry. Topics include total synthesis of biologically significant molecules, new methods of enantioselective synthesis and the study of organic reaction mechanisms.

364 RESEARCH TUTORIAL: BIOORGANIC CHEMISTRY
Karin Akerfeldt
Directed research in bioorganic chemistry. Topics include protein structure-function relationship studies and the design and synthesis of a broad range of peptides, proteins and biologically inspired novel materials.

367 RESEARCH TUTORIAL IN BIOLOGICAL CHEMISTRY
Louise Charkoudian, Robert Fairman
Directed research in organic biological chemistry. Topics include natural product isolation and characterization, investigations into the role of protein-protein interactions in antibiotic biosynthesis, and the elucidation of biosynthetic pathways

368 RESEARCH IN ENVIRONMENTAL CHEMISTRY
Helen K. White
Directed research in environmental chemistry, centered in the field of biogeochemistry, a multidisciplinary approach focused at understanding the chemical composition and processes of Earth's biosphere.

369 RESEARCH IN MATERIALS SCIENCE
Alexander Norquist
Topics include synthesis and structural characterization of organically templated microporous materials.

390 LABORATORY IN BIOCHEMISTRY RESEARCH
Louise Charkoudian, Robert Fairman
An introduction to the laboratory concepts and techniques at the chemistry-biology interface including: molecular cloning, protein purification, biophysical spectroscopy, molecular modeling, and biochemical assays.

391 DEPARTMENTAL SEMINAR
Karin Akerfeldt
One meeting per week throughout the year (one-half course credit). Presentation and discussion of current research topics in the various areas of chemistry by faculty, students, and outside speakers.

480 INDEPENDENT STUDY
Casey Londergan, Karin Akerfeldt

CLASSICAL AND NEAR EASTERN ARCHAEOLOGY AT BRYN MAWR COLLEGE

brynmawr.edu/archaeology

Students may complete a major or minor in Classical and Near Eastern Archaeology.

CURRICULUM

The curriculum of the department focuses on the cultures of the Mediterranean regions and the Near East in antiquity. Courses treat aspects of society and material culture of these civilizations as well as issues of theory, method, and interpretation.

MAJOR REQUIREMENTS

The major requires a minimum of 10 courses. Core requirements are two 100-level courses (either ARCH 101 or 104) distributed between the ancient Near East and Egypt and ancient Greece and Rome (ARCH 102), and two semesters of the senior conference. At least two upper-level courses should be distributed between classical and Near Eastern subjects. Additional requirements are determined in consultation with the major advisor. Additional coursework in allied subjects may be presented for major credit but must be approved in writing by the major advisor; such courses are offered in the Departments of Anthropology, Geology, Greek, Latin and Classical Studies, Growth and Structure of Cities, and History of Art. In consultation with the major advisor, one course taken in study abroad may be accepted for credit in the major.

The writing requirement for the major consists of two one-semester Writing Attentive courses offered within the department.

Each student's course of study to meet major requirements will be determined in consultation with the undergraduate major advisor in the spring semester of the sophomore year, at which time a written plan will be designed. Students considering majoring in the department are encouraged to take the introductory courses (ARCH 101 or 104 and 102) early in their undergraduate career and should also seek advice from departmental faculty. Students who are interested in interdisciplinary concentrations or in study abroad during the junior year are strongly advised to seek assistance in planning their major early in their sophomore year.

MINOR REQUIREMENTS

The minor requires six courses. Core requirements are two 100-level courses distributed between the ancient Near East and Egypt and ancient Greece and Rome, in addition to four other courses selected in consultation with the major advisor.

CONCENTRATION IN GEOARCHAEOLOGY

The Departments of Anthropology, Classical and Near Eastern Archaeology, and Geology offer a concentration in geoarchaeology for existing majors in these departments. Please consult with Professor Magee regarding this program. Please note that these requirements are separate from those for the major and cannot be double counted unless they first meet the above-described requirements for the major.

REQUIREMENTS FOR THE CONCENTRATION:

- Two 100-level units from Anthropology, Classical and Near Eastern Archaeology (including ARCH 135, a half-credit course) or Geology, of which one must be from the department outside the student's major.
- ANTH/ARCH/GEOL 270: Geoarchaeology (Magee, Barber).
- BIOL/ARCH/GEOL 328: Geospatial Data Analysis and GIS (staff).
- Two elective courses, to be chosen in

consultation with the major adviser, from among current offerings in Anthropology, Classical and Near Eastern Archaeology and Geology. One of these two courses must be from outside the student's major. Suggested courses include but are not limited to ARCH 135 (HALF-CREDIT: Archaeological Fieldwork and Methods), ANTH 203 (Human Ecology), ANTH 220 (Methods and Theory), ARCH 330 (History of Archaeology and Theory), ANTH 225 (Paleolithic Archaeology), ANTH 240 (Traditional Technologies), ARCH 308 (Ceramic Analysis), ARCH 332 (Field Techniques), GEOL 202 (Mineralogy), GEOL 205 (Sedimentology), GEOL 310 (Geophysics), GEOL 312 (Quaternary Climates).

HONORS

The department grants honors on the basis of academic performance as demonstrated by a cumulative average of 3.5 or better in the major.

INDEPENDENT RESEARCH

Majors who wish to undertake independent research, especially for researching and writing a lengthy paper, must arrange with a professor who is willing to advise them, and consult with the major adviser. Seniors would normally conduct such research as a unit of supervised work (403), which they must have the advising professor approved before registration. Students planning to do such research should consult with professors in the department in the spring semester of their junior year or no later than the beginning of the fall semester of the senior year.

LANGUAGES

Majors who contemplate graduate study in classical fields should incorporate Greek and Latin into their programs. Those who plan graduate work in Near Eastern or Egyptian may take appropriate ancient languages at the University of Pennsylvania, such as Middle Egyptian, Akkadian, and Sumerian. Any student considering graduate study in classical and Near Eastern archaeology should study French and German.

STUDY ABROAD

A semester of study abroad is encouraged if the program is approved by the department. Students are encouraged to consult with faculty, since some programs the department may approve may not yet be listed at the Office of International Programs. Students who seek major credit for courses taken abroad must consult with the major adviser before enrolling in a program. Major credit is given on a case-by-case basis after review of the syllabus, work submitted for a grade, and a transcript. Credit will not be given for more than one course and not for courses that are ordinarily offered by the department.

FIELDWORK

The department strongly encourages students to gain fieldwork experience and assists them in getting positions on field projects in North America and overseas. The department is undertaking several field projects in which undergraduates may be invited to participate.

Professor Peter Magee conducts a for-credit field school at Muweilah, al-Hamriya and Tell Abraq in the United Arab Emirates. Undergraduate and graduate students participate in this project, which usually takes place during the winter break. He sends an announcement about how to apply for a position in the fall of each year. Students who participate for credit sign up for a 403 independent study with Professor Magee.

Professor James Wright directs the Nemea Valley Archaeological Project in Greece, which has finished fieldwork and is currently under publication. Information about the archives is available through the Special Collections Department.

The department is collaborating with Professor Asli Özyar (Ph.D., Bryn Mawr College, 1991) of Boğaziçi University in Istanbul, in the Tarsus Regional Project, Turkey, sponsored by Boğaziçi University. This is a long-term investigation of the mound at Gözlükule at Tarsus, in Cilicia, which was first excavated by Hetty Goldman, A.B. 1903. Both undergraduate and graduate students in archaeology participate in this project, and an announcement inviting applications is sent to all majors in the fall of each year.

MUSEUM INTERNSHIPS

The department is awarded annually two internships by the Nicholas P. Goulandris Foundation for students to work for a month

in the Museum of Cycladic Art in Athens, Greece, with an additional two weeks at an archaeological field project. This is an all-expense paid internship for which students may submit an application. An announcement inviting applications is sent in the late fall or beginning of the second semester.

Opportunities to work with the College's archaeology collections are available throughout the academic year and during the summer. Students wishing to work with the collections should consult Marianne Weldon, Collections Manager for Special Collections.

FUNDING FOR INTERNSHIPS AND SPECIAL PROJECTS

The department has two funds that support students for internships and special projects of their own design. One, the Elisabeth Packard Fund for internships in Art History and Archaeology is shared with the Department of the History of Art, while the other is the Anna Lerah Keys Memorial Prize. Any declared major may apply for these funds. An announcement calling for applications is sent to majors in the spring, and the awards are made at the annual college awards ceremony in April.

FACULTY

Alice A. Donohue
Chair and Rhys Carpenter Professor of Classical and Near Eastern Archaeology

Mehmet-Ali Ataç
Associate Professor of Classical and Near Eastern Archaeology

Astrid Lindenlauf
Associate Professor of Classical and Near Eastern Archaeology (on leave 2014–2015)

Peter Magee
Professor of Classical and Near Eastern Archaeology (on leave spring 2015)

James C. Wright
Professor of Classical and Near Eastern Archaeology Department

COURSES

ARCH B101 INTRODUCTION TO EGYPTIAN AND NEAR EASTERN ARCHAEOLOGY

A historical survey of the archaeology and art of the ancient Near East and Egypt.

ARCH B102 INTRODUCTION TO CLASSICAL ARCHAEOLOGY

A. Donohue
A historical survey of the archaeology and art of Greece, Etruria, and Rome.

ARCH B104 ARCHAEOLOGY OF AGRICULTURAL AND URBAN REVOLUTIONS

This course examines the archaeology of the two most fundamental changes that have occurred in human society in the last 12,000 years, agriculture and urbanism, and we explore these in Egypt and the Near East as far as India. We also explore those societies that did not experience these changes. Crosslisted as CITY-B104. (Not Offered 2014-2015)

ARCH B125 CLASSICAL MYTHS IN ART AND IN THE SKY

This course explores Greek and Roman mythology using an archaeological and art historical approach, focusing on the ways in which the traditional tales of the gods and heroes were depicted, developed and transmitted in the visual arts such as vase painting and architectural sculpture, as well as projected into the natural environment. Crosslisted as HART-B125; CSTS-B125 (Not Offered 2014-2015)

ARCH B135 FOCUS: ARCHAEOLOGICAL FIELDWORK AND METHODS

The fundamentals of the practice of archaeology through readings and case studies and participatory demonstrations. Case studies will be drawn from the archives of the Nemea Valley Archaeological Project and material in the College's collections. Each week there will be a 1-hour laboratory that will introduce students to a variety of fieldwork methods and forms of analysis. This is a half semester Focus course. (Not Offered 2014-2015)

ARCH B136 FOCUS: ARCHAEOLOGICAL SCIENCE

This is a half-semester Focus course offered as an introduction to the role of science in the contemporary practice of archaeology. Although it will often be sequential to another Focus course, ARCH 135: Archaeological Fieldwork and

Methods, it is a standalone offering that will be of interest to a broad range of students. Topics covered in the course will include: radiometric dating (especially 14c), palaeo-environmental reconstruction, sedimentary analysis and geochemical provenience methodologies. This course will include a 1-hour lab. (Not Offered 2014-2015)

ARCH B203 ANCIENT GREEK CITIES AND SANCTUARIES

E. Tasopoulou

A study of the development of the Greek city-states and sanctuaries. Archaeological evidence is surveyed in its historic context. The political formation of the city-state and the role of religion is presented, and the political, economic, and religious institutions of the city-states are explored in their urban settings. The city-state is considered as a particular political economy of the Mediterranean and in comparison to the utility of the concept of city-state in other cultures. Crosslisted as CITY-B203

ARCH B205 GREEK SCULPTURE

One of the best-preserved categories of evidence for ancient Greek culture is sculpture. The Greeks devoted immense resources to producing sculpture that encompassed many materials and forms and served a variety of important social functions. This course examines sculptural production in Greece and neighboring lands from the Bronze Age through the fourth century B.C.E. with special attention to style, iconography and historical and social context. Crosslisted as HART-B204. (Not Offered 2014-2015)

ARCH B206 HELLENISTIC AND ROMAN SCULPTURE

A. Donohue

This course surveys the sculpture produced from the fourth century B.C.E. to the fourth century C.E., the period, beginning with the death of Alexander the Great, that saw the transformation of the classical world through the rise of Rome and the establishment and expansion of the Roman Empire. Style, iconography, and production will be studied in the contexts of the culture of the Hellenistic kingdoms, the Roman appropriation of Greek culture, the role of art in Roman society, and the significance of Hellenistic and Roman sculpture in the post-antique classical tradition. Crosslisted as HART-B206

ARCH B211 THE ARCHAEOLOGY AND ANTHROPOLOGY OF RUBBISH AND RECYCLING

This course serves as an introduction to a range of approaches to the study of waste and dirt as well as practices and processes of disposal and recycling in past and present societies. Particular attention will be paid to the interpretation of spatial disposal patterns, the power of dirt(y waste) to create boundaries and difference, and types of recycling. Crosslisted as ANTH-B211. (Not Offered 2014-2015)

ARCH B216 HITTITE ARCHAEOLOGY

M. Ataç

A survey of the art and archaeology of Hittite Anatolia from the Assyrian Trade Colony period through the Iron Age Syro-Hittite or Late Hittite cultures. The Early Bronze Age background and the interconnections with the Syro-Mesopotamian world are also addressed.

ARCH B220 ARABY THE BLEST: THE ARCHAEOLOGY OF THE ARABIAN PENINSULA FROM 3000 TO 300 B.C.E.

A survey of the archaeology and history of the Arabian peninsula focusing on urban forms, transport, and cultures in the Arabian peninsula and Gulf and their interactions with the world from the rise of states in Mesopotamia down to the time of Alexander the Great.
(Not Offered 2014-2015)

ARCH B224 WOMEN IN THE ANCIENT NEAR EAST

A survey of the social position of women in the ancient Near East, from sedentary villages to empires of the first millennium B.C.E. Topics include critiques of traditional concepts of gender in archaeology and theories of matriarchy. Case studies illustrate the historicity of gender concepts: women's work in early village societies; the meanings of Neolithic female figurines; the representation of gender in the Gilgamesh epic; the institution of the "Tawananna" (queen) in the Hittite empire; the indirect power of women such as Semiramis in the Neo-Assyrian palaces. Reliefs, statues, texts and more indirect archaeological evidence are the basis for discussion. (Not Offered 2014-2015)

ARCH B226 ARCHAEOLOGY OF ANATOLIA

One of the cradles of civilization, Anatolia witnessed the rise and fall of many cultures and states throughout its ancient history. This course approaches the ancient material remains of pre-

classical Anatolia from the perspective of Near Eastern archaeology, examining the art, artifacts, architecture, cities, and settlements of this land from the Neolithic through the Lydian periods. Some emphasis will be on the Late Bronze Age and the Iron Age, especially phases of Hittite and Assyrian imperialism, Late Hittite states, Phrygia, and the Urartu. (Not Offered 2014-2015)

ARCH B228 THE ARCHAEOLOGY OF IRAN: FROM THE NEOLITHIC TO ALEXANDER THE GREAT

This course examines the archaeology of Iran from circa 6000 BC to the coming of Alexander the Great at the end of the fourth century BC. Through the course we examine the beginnings of agriculture, pastoralism and sedentary settlement in the Neolithic and Chalcolithic periods; Bronze Age interaction between Iran, Mesopotamia, south Asia and the Arabian Gulf; developments within the Iron Age; and the emergence of the Achaemenid Empire (538-332BC). (Not Offered 2014-2015)

ARCH B230 ARCHAEOLOGY AND HISTORY OF ANCIENT EGYPT

M. Ataç

A survey of the art and archaeology of ancient Egypt from the Pre-Dynastic through the Graeco-Roman periods, with special emphasis on Egypt's Empire and its outside connections, especially the Aegean and Near Eastern worlds.

ARCH B234 PICTURING WOMEN IN CLASSICAL ANTIQUITY

We investigate representations of women in different media in ancient Greece and Rome, examining the cultural stereotypes of women and the gender roles that they reinforce. We also study the daily life of women in the ancient world, the objects that they were associated with in life and death and their occupations. Crosslisted as HART-B234; CSTS-B234. (Not Offered 2014-2015)

ARCH B240 ARCHAEOLOGY AND HISTORY OF ANCIENT MESOPOTAMIA

A survey of the material culture of ancient Mesopotamia, modern Iraq, from the earliest phases of state formation (circa 3500 B.C.E.) through the Achaemenid Persian occupation of the Near East (circa 331 B.C.E.). Emphasis will be on art, artifacts, monuments, religion, kingship, and the cuneiform tradition. The survival of the cultural legacy of Mesopotamia into later ancient and Islamic traditions will also be addressed. (Not Offered 2014-2015)

ARCH B244 GREAT EMPIRES OF THE ANCIENT NEAR EAST

A survey of the history, material culture, political and religious ideologies of, and interactions among, the five great empires of the ancient Near East of the second and first millennia B.C.E.: New Kingdom Egypt, the Hittite Empire in Anatolia, the Assyrian and Babylonian Empires in Mesopotamia, and the Persian Empire in Iran. Crosslisted as POLS-B244; HIST-B244; CITY-B244. (Not Offered 2014-2015)

ARCH B254 CLEOPATRA

E. Tasopoulou

This course examines the life and rule of Cleopatra VII, the last queen of Ptolemaic Egypt, and the reception of her legacy in the Early Roman Empire and the western world from the Renaissance to modern times. The first part of the course explores extant literary evidence regarding the upbringing, education, and rule of Cleopatra within the contexts of Egyptian and Ptolemaic cultures, her relationships with Julius Caesar and Marc Antony, her conflict with Octavian, and her death by suicide in 30 BCE. The second part examines constructions of Cleopatra in Roman literature, her iconography in surviving art, and her contributions to and influence on both Ptolemaic and Roman art. A detailed account is also provided of the afterlife of Cleopatra in the literature, visual arts, scholarship, and film of both Europe and the United States, extending from the papal courts of Renaissance Italy and Shakespearean drama, to Thomas Jefferson's art collection at Monticello and Joseph Mankiewicz's 1963 epic film, Cleopatra.

ARCH B255 SHOW AND SPECTACLE IN ANCIENT GREECE AND ROME

A survey of public entertainment in the ancient world, including theater and dramatic festivals, athletic competitions, games and gladiatorial combats, and processions and sacrifices. Drawing on literary sources and paying attention to art, archaeology and topography, this course explores the social, political and religious contexts of ancient spectacle. Special consideration will be given to modern equivalents of staged entertainment and the representation of ancient spectacle in contemporary film. Crosslisted as

CSTS-B255; HIST-B285; CITY-B260. (Not Offered 2014-2015)

ARCH B260 DAILY LIFE IN ANCIENT GREECE AND ROME

The often-praised achievements of the classical cultures arose from the realities of day-to-day life. This course surveys the rich body of material and textual evidence pertaining to how ancient Greeks and Romans -- famous and obscure alike -- lived and died. Topics include housing, food, clothing, work, leisure, and family and social life. Crosslisted as CSTS-B260; CITY-B259; ANTH-B260. (Not Offered 2014-2015)

ARCH B268 GREEK AND ROMAN ARCHITECTURE

A survey of Greek and Roman architecture taking into account building materials, construction techniques, various forms of architecture in their urban and religious settings from an historical and social perspective. Crosslisted as HART-B268; CITY-B268. (Not Offered 2014-2015)

ARCH B270 GEOARCHAEOLOGY

Societies in the past depended on our human ancestors' ability to interact with their environment. Geoarchaeology analyzes these interactions by combining archaeological and geological techniques to document human behavior while also reconstructing the past environment. Course meets twice weekly for lecture, discussion of readings and hands on exercises. Prerequisite: one course in anthropology, archaeology or geology. Crosslisted as GEOL-B270; ANTH-B270. (Not Offered 2014-2015)

ARCH B301 GREEK VASE-PAINTING

This course is an introduction to the world of painted pottery of the Greek world, from the 10th to the 4th centuries B.C.E. We will interpret these images from an art-historical and socio-economic viewpoint. We will also explore how these images relate to other forms of representation. Prerequisite: one course in classical archaeology or permission of instructor. (Not Offered 2014-2015)

ARCH B305 TOPICS IN ANCIENT ATHENS

E. Tasopoulou

This is a topics course. Course content varies. Crosslisted as CITY-B305.

ARCH B308 CERAMIC ANALYSIS

Pottery is a fundamental means of establishing the relative chronology of archaeological sites and of understanding past human behavior. Included are theories, methods and techniques of pottery description, analysis and interpretation. Topics include typology, seriation, ceramic characterization, production, function, exchange and the use of computers in pottery analysis. Laboratory work on pottery in the department collections. Prerequisite: Permission of instructor. (Not Offered 2014-2015)

ARCH B312 THE EASTERN MEDITERRANEAN IN THE LATE BRONZE AGE

M. Ataç

This course is focused on the artistic interconnections among Egypt, Syria, Anatolia, and the Aegean during the Late Bronze Age (ca. 1500-1200 BCE) and their Middle Bronze Age (ca. 2000-1500 BCE) background. Prerequisites: ARCH B101 or B216 or B226 or B230 or B240 or B244.

ARCH B316 TRADE AND TRANSPORT IN THE ANCIENT WORLD

P. Magee

Issues of trade, commerce and production of export goods are addressed with regard to the Bronze Age and Iron Age cultures of Mesopotamia, Arabia, Iran and south Asia. Crucial to these systems is the development of means of transport via maritime routes and on land. Archaeological evidence for traded goods and shipwrecks is used to map the emergence of sea-faring across the Indian Ocean and Gulf while bio-archaeological data is employed to examine the transformative role that Bactrian and Dromedary camels played in ancient trade and transport. Crosslisted as CITY-B316.

ARCH B323 ON THE TRAIL OF ALEXANDER THE GREAT

This course explores the world of Alexander the Great and the Hellenistic world on the basis of a variety of sources. Particular focus is put on the material culture of Macedonia and Alexander's campaigns that changed forever the nature and boundaries of the Greek world. Prerequisite: A course in classical archaeology or permission of the instructor. (Not Offered 2014-2015)

ARCH B324 ROMAN ARCHITECTURE

The course gives special attention to the architecture and topography of ancient Rome from the origins of the city to the later Roman Empire. At the same time, general issues in architecture and planning with particular reference to Italy and the provinces from republic to empire are also addressed. These include public and domestic spaces, structures, settings and uses, urban infrastructure, the relationship of towns and territories, "suburban" and working villas, and frontier settlements. Prerequisite: ARCH 102.
Crosslisted as CSTS-B324; HART-B324. (Not Offered 2014-2015)

ARCH B328 ANALYSIS OF GEOSPATIAL DATA USING GIS

Analysis of geospatial data, theory, and the practice of geospatial reasoning. Crosslisted as CITY-B328; GEOL-B328; BIOL-B328.
(Not Offered 2014-2015)

ARCH B329 ARCHAEOLOGY AND NATIONAL IMAGINATION IN MODERN GREECE

E. Tasopoulou

This course explores the link between archaeology, antiquity and the national imagination in modern Greece from the establishment of the Greek state in the early nineteenth century to present times. Drawing from a variety of disciplines, including history, archaeology, art history, sociology, anthropology, ethnography, and political science, the course examines the pivotal role of archaeology and the classical past in the construction of national Greek identity. Special emphasis is placed on the concepts of Hellenism and nationalism, the European rediscovery of Greece in the Romantic era, and the connection between classical archaeology and Philhellenism from the eighteenth to the twentieth centuries. Additional topics of study include the presence of foreign archaeological schools in Greece, the Greek perception of archaeology, the politics of display in Greek museums, and the importance and power of specific ancient sites, monuments, and events, such as the Athenian Acropolis, the Parthenon, and the Olympic Games, in the construction and preservation of Greek national identity.

ARCH B330 ARCHAEOLOGICAL THEORY AND METHOD

A history of archaeology from the Renaissance to the present with attention to the formation of theory and method; special units on gender and feminist theory and post-modern approaches. Crosslisted as ANTH-B330 (Not Offered 2014-2015)

ARCH B352 ANCIENT EGYPTIAN ARCHITECTURE: THE NEW KINGDOM

A proseminar that concentrates on the principles of ancient Egyptian monumental architecture with an emphasis on the New Kingdom. The primary focus of the course is temple design, but palaces, representative settlements, and examples of Graeco-Roman temples of the Nile Valley will also be dealt with. Prerequisites: ARCH B101 or B230 or B244. (Not Offered 2014-2015)

ARCH B359 TOPICS IN CLASSICAL ART AND ARCHAEOLOGY

This is a topics course. Course content varies. Prerequisites: 200-level coursework in some aspect of classical or related cultures, archeology or art history. Crosslisted as HART-B358; CSTS-B359. (Not Offered 2014-2015)

ARCH B398 SENIOR SEMINAR

P. Magee

A weekly seminar on topics to be determined with assigned readings and oral and written reports.

ARCH B399 SENIOR SEMINAR

A. Donohue

A weekly seminar on common topics with assigned readings and oral and written reports.

ARCH B403 SUPERVISED WORK

Supervised Work

ARCH B501 GREEK VASE PAINTING

This course is an introduction to the world of painted pottery of the Greek world, from the 10th to the 4th centuries B.C.E. We will interpret these images from an art-historical and socio-economic viewpoint. We will also explore how these images relate to other forms of representation. Prerequisite: One course in classical archaeology or permission of instructor. Units: 1.0
(Not Offered 2014-2015)

ARCH B505 TOPICS IN ANCIENT ATHENS

E. Tasopoulou

This is a topics course. Topics vary. Previous topics include: Monuments and Art, Acropolis.

ARCH B508 CERAMIC ANALYSIS

Pottery is fundamental for establishing the relative chronology of archaeological sites and past human behavior. Included are theories, methods and techniques of pottery description, analysis, and interpretation. Topics are typology, seriation, ceramic characterization, production, function, exchange and the use of computers in pottery analysis. Laboratory in the collections. (Not Offered 2014-2015)

ARCH B516 TRADE AND TRANSPORT IN THE ANCIENT WORLD

P. Magee

Issues of trade, commerce and production of export goods are addressed with regard to the Bronze Age and Iron Age cultures of Mesopotamia, Arabia, Iran and south Asia. Crucial to these systems is the development of means of transport via maritime routes and on land. Archaeological evidence for traded goods and shipwrecks is used to map the emergence of sea-faring across the Indian Ocean and Gulf while bio-archaeological data is employed to examine the transformative role that Bactrian and Dromedary camels played in ancient trade and transport.

ARCH B529 ARCHAEOLOGY AND NATIONAL IMAGINATION IN MODERN GREECE

E. Tasopoulou

This course explores the link between archaeology, antiquity and the national imagination in modern Greece from the establishment of the Greek state in the early nineteenth century to present times. Drawing from a variety of disciplines, including history, archaeology, art history, sociology, anthropology, ethnography, and political science, the course examines the pivotal role of archaeology and the classical past in the construction of national Greek identity. Special emphasis is placed on the concepts of Hellenism and nationalism, the European rediscovery of Greece in the Romantic era, and the connection between classical archaeology and Philhellenism from the eighteenth to the twentieth centuries. Additional topics of study include the presence of foreign archaeological schools in Greece, the Greek perception of archaeology, the politics of display in Greek museums, and the importance and power of specific ancient sites, monuments, and events, such as the Athenian Acropolis, the Parthenon, and the Olympic Games, in the construction and preservation of Greek national identity.

ARCH B530 ARCHAEOLOGICAL THEORY AND METHOD

A history of archaeology from the Renaissance to the present with attention to the formation of theory and method; special units on gender and feminist theory and post-modern approaches. (Not Offered 2014-2015)

ARCH B552 EGYPTIAN ARCHITECTURE: NEW KINGDOM

A proseminar that concentrates on the principles of ancient Egyptian monumental architecture with an emphasis on the New Kingdom. The primary focus of the course is temple design, but palaces, representative settlements, and examples of Graeco-Roman temples of the Nile Valley will also be dealt with. (Not Offered 2014-2015)

ARCH B570 GEOARCHAEOLOGY

Societies in the past depended on our human ancestors' ability to interact with their environment. Geoarchaeology analyzes these interactions by combining archaeological and geological techniques to document human behavior while also reconstructing the past environment. Course meets twice weekly for lecture, discussion of readings and hands on exercises. Prerequisite: One course in anthropology, archaeology, or geology. (Not Offered 2014-2015)

ARCH B605 THE CONCEPT OF STYLE

A. Donohue

Style is a fundamental concern for historians of art. This seminar examines concepts of style in ancient and post-antique art historiography, focusing on the historical and intellectual contexts in which they arose. Special attention is paid to the recognition and description of style, explanations of stylistic change, and the meanings attached to style, particularly in classical and related art.

ARCH B608 MEDITERRANEAN LANDSCAPE ARCHAEOLOGY

This course explores a range of approaches to the study of landscapes that relates to core

principles of the field of archaeology. It also discusses the construction of specific landscapes in the Mediterranean (e.g., gardens, sacred landscapes, and memoryscapes). (Not Offered 2014-2015)

ARCH B622 CLASSICAL CONCEPTIONS OF THE HUMAN FIGURE

The representation of the human figure is so central to the art of the West that it is easy to accept it as a natural and inevitable concern and to overlook the problems it raises. This seminar will focus on some of the fundamental artistic, cultural, and ideological issues surrounding the conceptions of the human form in classically based representations. The material to be considered will range from the art and literature of classical antiquity through contemporary critical approaches. Post-antique, non-classical, and non-Western traditions perspectives are welcome. Proposed topics include: knowledge of the human body (including medical texts); individual and type; physiognomic analysis, proportions and canons; the ideal; representations of mental states; representation of movement (including drama and dance); anthropomorphism and the divine; masks; costumes, and alterations. (Not Offered 2014-2015)

ARCH B623 ON THE TRAIL OF ALEXANDER THE GREAT

This course explores the world of Alexander the Great and the Hellenistic world based on a variety of sources. Particular focus is put on the material culture of Macedonia and Alexander's campaigns that changed forever the nature and boundaries of the Greek world. Prerequisite: A course in Classical Archaeology or permission of the instructor. (Not Offered 2014-2015)

ARCH B625 HISTORIOGRAPHY OF ANCIENT ART

Our understanding of the material culture of classical antiquity and related civilizations, including the post-antique West, rests on information and interpretive frameworks derived from ancient texts. This pro-seminar explores how the history of ancient art has been and continues to be written, with emphasis on the ancient texts, their historical and intellectual contexts, and the uses to which they have been put in a variety of historical formulations from antiquity through modern times. (Not Offered 2014-2015)

ARCH B628 ASSYRIA AND THE WEST: NEO-HITTITE STATES

M. Ataç

This seminar revolves around the art and architecture of the Neo-Hittite states of the Iron Age in Syro-Anatolia from the lens of their relations with the Neo-Assyrian Empire.

ARCH B634 PROBLEMS IN GREEK ART

A seminar dealing with current issues in the art of ancient Greece and related traditions. (Not Offered 2014-2015)

ARCH B636 MYCENAEAN ARCHAEOLOGY

An intensive survey of the archaeology of Late Bronze Age Greece focusing on the sites of the Mycenaean culture. (Not Offered 2014-2015)

ARCH B638 ARCHAEOLOGY OF ASSYRIA

A seminar focused on the art and architecture of the Neo-Assyrian Empire (883-612 BCE). Emphasis will be on the cities, palaces, and decorative programs of the major Neo-Assyrian kings. (Not Offered 2014-2015)

ARCH B639 THE IRANIAN IRON AGE

In this course we examine the archaeology of Iran and its neighbors to the south, north and east from c. 1300 to 300 BC. Through an analysis of archaeological data, we will examine questions related to subsistence strategies, trade and the response to imperial powers. The course incorporates an examination of the archaeology of the Achaemenid Empire. (Not Offered 2014-2015)

ARCH B654 THE ARCHAEOLOGY OF PREHISTORIC ARABIA

P. Magee

In this course we examine the archaeology of prehistoric Arabia from c. 8000 to 500 BC. Particular emphasis is placed upon how the archaeological evidence illuminates social and economic structures.

ARCH B669 ANCIENT GREECE AND THE NEAR EAST

Approaches to the study of interconnections between Ancient Greece and the Near East, mainly in the Iron Age, with emphasis on art, architecture, and intellectual perspective. (Not Offered 2014-2015)

ARCH B672 ARCHAEOLOGY OF RUBBISH

This course explores a range of approaches to the study of waste and dirt as well as practices

and processes of disposal and recycling in past and present societies. Particular attention will be paid to understanding and interpreting spatial disposal patterns, identifying votive deposits (bothroi), and analyzing the use of dirt(y waste) in negotiating social differences. (Not Offered 2014-2015)

ARCH B692 ARCHAEOLOGY OF ACHAEMENID ERA
The course explores the archaeology of the Achaemenid Empire. It will be offered in conjunction with Professor Lauren Ristvet (UPENN) and will cover the archaeology of the regions from Libya to India fro 538 to 332 BC. Students will be expected to provide presentations as well as written work. (Not Offered 2014-2015)

ARCH B701 SUPERVISED WORK
A. Donohue, M. Ataç, P. Magee, A. Lindenlauf
Unit of supervised work.

ARCH B104 ARCHAEOLOGY OF AGRICULTURAL AND URBAN REVOLUTIONS
This course examines the archaeology of the two most fundamental changes that have occurred in human society in the last 12,000 years, agriculture and urbanism, and we explore these in Egypt and the Near East as far as India. We also explore those societies that did not experience these changes. Crosslisted as CITY-B104. (Not Offered 2014-2015)

ARCH B135 FOCUS: ARCHAEOLOGICAL FIELDWORK AND METHODS
The fundamentals of the practice of archaeology through readings and case studies and participatory demonstrations. Case studies will be drawn from the archives of the Nemea Valley Archaeological Project and material in the College's collections. Each week there will be a 1-hour laboratory that will introduce students to a variety of fieldwork methods and forms of analysis. This is a half semester Focus course. (Not Offered 2014-2015)

ARCH B136 FOCUS: ARCHAEOLOGICAL SCIENCE
This is a half-semester Focus course offered as an introduction to the role of science in the contemporary practice of archaeology. Although it will often be sequential to another Focus course, ARCH 135: Archaeological Fieldwork and Methods, it is a stand-alone offering that will be of interest to a broad range of students. Topics covered in the course will include: radiometric dating (especially 14c), palaeo-environmental reconstruction, sedimentary analysis and geochemical provenience methodologies. This course will include a 1-hour lab. (Not Offered 2014-2015)

ARCH B270 GEOARCHAEOLOGY
Societies in the past depended on our human ancestors' ability to interact with their environment. Geoarchaeology analyzes these interactions by combining archaeological and geological techniques to document human behavior while also reconstructing the past environment. Course meets twice weekly for lecture, discussion of readings and hands on exercises. Prerequisite: One course in anthropology, archaeology or geology. Crosslisted as GEOL-B270; ANTH-B270. (Not Offered 2014-2015)

ARCH B308 CERAMIC ANALYSIS
Pottery is a fundamental means of establishing the relative chronology of archaeological sites and of understanding past human behavior. Included are theories, methods and techniques of pottery description, analysis and interpretation. Topics include typology, seriation, ceramic characterization, production, function, exchange and the use of computers in pottery analysis. Laboratory work on pottery in the department collections. Prerequisite: Permission of instructor. (Not Offered 2014-2015)

CLASSICS

haverford.edu/classics

The Classics department offers instruction at all levels in Greek and Latin language and literature, in cooperation with the Bryn Mawr department of Greek, Latin, and Classical Studies. Courses in Classical Studies provide opportunities to study ancient history, literature, and culture in English translation. Since the study of Greek and Roman civilization includes work in a number of different disciplines, students of Classics may also find courses of interest in a variety of departments at Haverford and Bryn Mawr (Archaeology, Comparative Literature, History, Philosophy, and Religion).

WHAT IS CLASSICS?

In the broadest sense, Classics is the study of the ancient Greek and Roman world, its cultures, and their impact on later cultural traditions. The elasticity of these terms (e.g., "ancient," "culture," "Roman") gives the discipline dynamism, but its shared center is a common body of texts. While careful study of these texts is vital, the Classicist touches all aspects of life and culture in ancient Greek and Roman society, including the areas of history, law, religion, material culture, art, family life, politics, and philosophy. Classics is also interested in how later peoples understood and transformed this inheritance, generating the rich Classical tradition in literature and the other arts.

WHY STUDY CLASSICS?

Like many disciplines in the liberal arts, Classics provides a rigorous environment to improve critical thinking and communication. Latin and Greek in particular equip students with a greater facility in understanding the potential and limitations of language. Such training can also enrich study in other disciplines, most notably related fields like philosophy, comparative literature and history, where knowledge of Classical material can provide a useful key or powerful counterpoint. One of the greatest benefits for anyone who takes courses in Classics is the bracing experience of encountering — through texts and across a vast gulf of time— people who are at once familiar and strange, who continue to influence how we think, act and feel and yet are radically different from us. With honest and critical engagement, this encounter can make our thinking richer and more complex. Studying Classics prepares our graduates for a number of different careers. Some have pursued advanced degrees in Classics or related fields (e.g., Archaeology and Religion); others have studied medicine, dentistry, or law, or have chosen careers in journalism, business, publishing, social work, museum curatorship, library science, and secondary education.

WHY CLASSICS AT HAVERFORD?

Haverford professors teach the languages at all levels while also offering courses on their special interests in classical culture, ranging from the development of comedic literature to translation theory to the enduring influence of the Troy myth. These courses are accessible to students without Greek and Latin, providing an excellent working introduction to the nature and pleasures of Classics. Our complementary relationship with Bryn Mawr broadens our offerings, providing resources for the study of the ancient world that are beyond those available at most colleges of our size.

LEARNING GOALS FOR CLASSICS MAJORS

- a capacity to read Greek, Latin, or both at a basic level (for majors in Classical Culture and Society) or at an advanced level (for majors in Greek, Latin, or Classical Languages).
- a shared familiarity with the core texts on the Bi-College Classics majors' reading list.
- a capacity for the close reading and interpretation of texts and other cultural artifacts.
- a sense of the historical and cultural context of texts, ideas, and events.
- a capacity to engage with and critically evaluate secondary literature.
- an acquaintance with central theoretical issues and approaches in the field.
- a mastery of basic research skills in the field.
- a capacity for critical thinking and argument.

CURRICULUM

The major programs in Classics reflect the diversity of the field: students may major in Classical Languages (Greek and Latin), Greek or Latin (with a related modern field), or Classical Culture and Society. We encourage majors to study abroad during a semester of their junior year in Greece, Italy, or any other country with a strong tradition in Classical Studies.
Students may choose from three minors, each of which requires six courses: Greek, Latin, or Classical Culture and Society. Students may also major or minor in Archaeology at Bryn Mawr.

MAJOR REQUIREMENTS

CLASSICAL LANGUAGES

- Eight semester courses beyond the elementary level divided between Greek and Latin, of which at least two in each language must be at the 200 level or above
- completion of the Classics Department reading list
- Senior Seminar (398/399).

GREEK OR LATIN

- Six semester courses beyond the elementary level in one ancient language, of which at least four must be at the 200 level or above
- completion of the Classics Department reading list
- Senior Seminar (398/399)
- a minimum of three semester courses beyond the introductory level in a related field (another language, archaeology, comparative literature, English, history, religion, philosophy).

CLASSICAL CULTURE AND SOCIETY

- Two courses in either Latin or Greek beyond the elementary level
- one course in Greek or Roman history
- three courses, at least two of which must be at the 200 level or above, in one of the following concentrations: archaeology and art history, history and society; literature and the classical tradition; philosophy and religion
- three electives dealing with classical antiquity, at least one at the 200 level or above, and at least one (except in the case of history and society concentrators) drawn from courses in history and society
- completion of the Department reading list
- Senior Seminar (398/399).

SENIOR SEMINAR AND THESIS:

In the fall semester of their senior year, Classics majors participate in a seminar taught jointly by Haverford and Bryn Mawr faculty (Classics 398). The seminar, which consists of the close study of critical theory and readings on particular texts and topics, helps prepare students to write the senior thesis. As part of the seminar, students compose a prospectus and bibliography for their senior thesis.

In the spring semester (Classics 399), all students write a senior thesis on a topic of their choice, working closely with a faculty advisor from either Haverford or Bryn Mawr.

MINOR REQUIREMENTS

GREEK OR LATIN

Six semester courses in the language, at least two of which must be at the 200 level or above. The department may reduce the number of required courses for those who are already beyond the elementary language when they begin the minor.

CLASSICAL CULTURE AND SOCIETY

Six courses drawn from the range of courses counted towards Classical Culture and Society. Of these, two must be in Greek or Latin at the 100 level or above and at least one must be in Classical Culture and Society at the 200 level.

HONORS REQUIREMENTS

Superior performance in course work and the senior thesis constitutes the basis for Departmental Honors.

SPECIAL PROGRAMS

The department's extra-curricular life includes visiting speakers, occasional expeditions to plays or museums, the annual bi-college Orali-tea (recitation of Greek and Latin literature), public marathon readings of Classical texts, reading groups, and other departmental events.

The faculty encourages and supports events that are organized by students. Bryn Mawr hosts a weekly Classics Tea and Colloquium featuring visiting lectures.

FACULTY

Bret Mulligan
Chair and Associate Professor

Deborah H. Roberts
William R. Kenan Jr. Professor of Classics and Comparative Literature (on leave spring 2015)

Robert Germany
Assistant Professor

COURSES IN GREEK LANGUAGE AND LITERATURE

001 ELEMENTARY GREEK

Robert Germany
Introduction to ancient Greek, with selected readings in poetry and prose. This is the first semester of a year-long course.

002 ELEMENTARY GREEK

Robert Germany
Completion of the basics of ancient Greek, followed by readings in Lysias and Plato. This is the second semester of a year-long course.

102 INTRODUCTION TO GREEK POETRY

Bret Mulligan
Readings in Homer's Iliad or Odyssey, with critical interpretation and discussion.

COURSES IN LATIN LANGUAGE AND LITERATURE

001 ELEMENTARY LATIN

Sydnor Roy
Introduction to the Latin language, including vocabulary, grammar, style, and techniques for reading and translation of poetry and prose; with attention to Roman history, mythology, literature, religion, and more. This is the first semester of a year-long course.

002B ELEMENTARY LATIN

Sydnor Roy
Completion of the introduction to the Latin language, with readings in prose (especially Cicero and Sallust on the Catilinarian Conspiracy) and poetry (especially Ovid and Vergil).

101 INTRODUCTION TO LATIN LITERATURE: THE LANGUAGE OF LOVE AND HATE IN THE ROMAN REPUBLIC

Deborah H. Roberts
Introduction to the study of Latin literature through readings from Catullus's poetry and Cicero's Pro Caelio. Class will include some grammar review, but emphasis is on developing reading skills and on critical interpretation and discussion.

102 INTRODUCTION TO LATIN LITERATURE: COMEDY

William Tortorelli
Deepening acquaintance with Latin language and literature through close reading of a Roman comedy. Review of Classical Latin grammar by comparison with Archaic Latin. Additional emphasis on colloquial Latin, meter, stagecraft, and reception. Class stages a public performance!

201A ADVANCED LATIN LITERATURE: VERGIL

Bret Mulligan

350 SEMINAR IN LATIN LITERATURE

Robert Germany
An advanced seminar in Latin language and literature, with special emphasis on the interpretation and discussion of texts in Latin and the reading of relevant scholarship. Topic to be determined by faculty. May be repeated for credit. Prerequisite: At least one 200-level Latin course or consent

COURSES IN CLASSICAL STUDIES NOT REQUIRING GREEK OR LATIN

121 THE ROMAN REVOLUTION

Sydnor Roy
An introduction to the literature and culture of ancient Rome, focusing on the transformative period of the late republic and early principate, including topics such as the Romans' self-image, religion, sex, and gender, and the relationship between art and politics.

212 REFASHIONING THE CLASSICS: ANCIENT LITERATURE AND MODERN WRITERS

Deborah H. Roberts
An exploration of the uses of Greek and Latin literature in later writers, with attention to particularly influential ancient authors (Homer,

Vergil, Ovid, and others), to a range of modern authors, and to the varieties of literary influence and intertextuality.

215 TALES OF TROY
Bret Mulligan

221 THE ANCIENT NOVEL
Robert Germany
An exploration of the earliest prose fiction in the Western literary tradition in relation to other ancient genres and to the early modern novel, with attention to formulations of gender, heroism, truth, love, and violence.

290 HISTORY OF LITERARY THEORY
Deborah H. Roberts
In this course we investigate central texts in literary theory from the Greeks to early nineteenth-century Europe, with attention to key critical terms and concepts. Topics of discussion include the nature and origin of literary creation, socio-political ideas about the function of poetry and the poet, mimetic models of literature, the roles of art and nature, literature in relation to its audience, theories of genre, defenses of poetry, allegorical interpretation, the idea of the sublime, definitions of the imagination, poetic language, and the application of critical theory to particular texts. Readings include selections from: Plato, Aristotle, Horace, Longinus, Dante, Augustine, Sidney, Corneille, Dryden, Pope, De Stael, Johnson, Wollstonecraft, Wordsworth, Coleridge, Keats, and Shelley. Requirements include five short papers and a final exam. Not open to first-year students.

398 SENIOR SEMINAR
Bret Mulligan
A bi-college, team-taught seminar focused on refining the ability to read, discuss, and analyze classical culture and the scholarship of various sub-fields of Classical Studies (e.g., literature, religion, philosophy, law, social history), leading towards the completion of a prospectus for the senior thesis.

399 SENIOR SEMINAR
Bret Mulligan
Independent work on the senior thesis and meetings with the thesis advisor.

COMPARATIVE LITERATURE

brynmawr.edu/complit

Comparative Literature is a joint interdisciplinary program at Haverford and Bryn Mawr. Comparative literature situates literature in an international perspective and examines connections between literary history, literary criticism, critical theory, and poetics, and works toward an understanding of the sociocultural functions of literature. We and our students engage in the close reading of literary texts from different cultures and periods, and we do so from a variety of cultural perspectives, in order to understand both the multiple meanings that inhere in literary language and the socio-cultural functions of literature.

Interpretive methods from other disciplines that interrogate cultural discourses also play a role in the comparative study of literature, including:

- anthropology, philosophy, religion, and history
- classical studies and cultural studies
- Africana, Latin American, East Asian and gender and sexuality studies
- music, the visual arts, and the history of art.

The availability of resources at Bryn Mawr and Haverford permits the Comparative Literature program to offer an extensive variety of study options, which include:

- literature courses in English and the languages offered at the two colleges (Spanish, French, German, Italian, Russian, Latin, ancient Greek, Japanese, Chinese, Arabic and Hebrew)
- cross-listed comparative electives taught in English
- courses in criticism and theory.

Since Haverford established the major in 1991, our students have gone on to do graduate work in comparative literature and related fields; pursued advanced degrees in business, law, medicine, and journalism; and under-taken careers in translation, international relations and publishing. Graduates with a comp lit major have successfully entered or completed the Ph.D. and other advanced degree programs in: comparative literature (Columbia, U Penn, UC Berkeley), education (Columbia), film studies (Univ of Endinburgh), German (UPenn), Italian (Columbia), literature (UC San Diego); religion (Emory; Harvard Divinity School), and Spanish (Johns Hopkins, Harvard, Virginia).

"Observable" and "measurable" outcomes in the major:

- Advanced skills in a language other than English and show the capacity to analyze and interpret literary and cultural texts in the original language.
- Analysis, interpretation or translation of the literary texts of two distinct national cultures and analysis of these comparatively, across national and/or linguistic boundaries, or addressing, considering, evaluating, and applying specific methodological or theoretical paradigms.
- the ability to
  - o evaluate and discuss the merits of a critical or methodological approach
  - o complete an independent scholarly project
  - o bring together and analyze critically, in light of certain central issues and themes, a selection of works of literature and criticism read over the four years.

CURRICULUM

We require comparative literature students to have a reading knowledge of at least one language other than English, adequate to the advanced study of literature in that language, and encourage students to begin the study of a third language. Some comparative literature courses may require reading knowledge in the language as a prerequisite for admission.

Students interested in pursuing a comparative literature major should discuss their preparation and program of courses with the comparative literature chair early in their first or second year at the College.

We recommend (but do not require) that:

- majors study abroad during one or two semesters of the junior year

• students with a possible interest in graduate school begin a second foreign language before they graduate.

MAJOR REQUIREMENTS

- Comparative Literature 200, "Introduction to Comparative Literature," normally taken by the spring of the sophomore year
- six advanced literature courses in the original languages (normally at the 200 level or above), balanced between two literature departments (of which English may be one): at least two (one in each literature) must be at the 300 level or above, or its equivalent, as approved in advance by the advisor
- one course in critical theory
- two electives in comparative literature
- Comparative Literature 398, "Theories and Methods in Comparative Literature"
- Comparative Literature 399 "Senior Seminar in Comparative Literature."

Students may draw courses in comparative literature from a variety of departments. A listing of current courses appears each year in the Tri-College Course Guide (www.trico.haverford.edu/cgi-bin/courseguide/cgi-bin/search.cgi).

MINOR REQUIREMENTS

Comparative Literature 200 and 398, plus four advanced literature courses in the original languages (normally at the 200 level or above) divided between two literature departments, of which English may be one. At least one course of these four must be at the 300 level.

We encourage students who minor to choose their national literature courses from those with a comparative component.

HONORS REQUIREMENTS

Students who, in the judgment of the Steering Committee in Comparative Literature, have done distinguished work in their comparative literature courses and in the Senior Seminar will be considered for Departmental Honors.

FACULTY

Two co-chairs, one at each college, and a bi-college steering committee administer the program. The committee generally includes those faculty members most often involved in teaching the introductory course and the senior seminar.

AT HAVERFORD:

Israel Burshatin
Chair and Barbara Riley Levin Professor of Spanish and Comparative Literature

Imke Brust
Assistant Professor of German

Roberto Castillo Sandoval
Associate Professor of Spanish

Maud McInerney
Associate Professor of English

Jerry Miller
Associate Professor of Philosophy

Deborah Roberts
William E. Kenan, Jr. Professor of Classics and Comparative Literature

Ulrich Schönherr
Associate Professor of German

David Sedley
Associate Professor of French

Travis Zadeh
Associate Professor of Religion

AT BRYN MAWR:

Azade Seyhan
Fairbanks Professor in the Humanities and Professor of German and Comparative Literature

María Cristina Quintero
Professor of Spanish

Martín Gaspar
Assistant Professor of Spanish

Francis Higginson
Associate Professor of French

Roberta Ricci
Associate Professor of Italian

Hoang Tan Nguyen
Assistant Professor of English

Jennifer Harford Vargas
Assistant Professor of English

COURSES

200 INTRODUCTION TO COMPARATIVE LITERATURE

Maud B. McInerney, Ulrich Schoenherr

The course offers a comprehensive reconstruction of literature from the Renaissance period to the present, by focusing on a) the changing relationship between literature and religion, b) the construction of identities (class, gender, race), c) the representation of history, and d) models of literary self-referentiality. In addition, the class will introduce a variety of literary and cultural theories necessary for the analysis of (non)fictional texts.

205A STUDIES IN THE SPANISH AMERICAN NOVEL

Graciela Michelotti

Full topic title: "Territories: Limits & Displacements in Latin American Contemporary Narrative"

This course examines the topic of territory, with a concentration on territorial limits and displacements in Latin American narrative from the 1980s to the present. The goal of the course is to analyze novels, short stories, and films representing different countries and/or regions in the context of current configurations of Latin American territories.

205B STUDIES IN THE SPANISH AMERICAN NOVEL

Graciela Michelotti

The course examines how the Gothic and the genre of horror manifest in Spain from the Romantic period to the present. It incorporates film and literary works from other national traditions to provide an understanding of the Gothic tradition of horror narratives and its expression in Spain.

210 SPANISH AND SPANISH-AMERICAN FILM STUDIES

Graciela Michelotti

Exploration of films in Spanish from both sides of the Atlantic. The course discusses approximately one movie per class, from a variety of classic and more recent directors such as Luis Buñuel, Carlos Saura, Pedro Almodóvar, and Lucrecia Martel, among others. The class focuses on the cinematic discourse as well as the cultural and historic background of each film. The course also provides advanced language training with particular emphasis in refining oral and writing skills.

212 REFASHIONING THE CLASSICS: ANCIENT LITERATURE AND MODERN WRITERS

Deborah H. Roberts

An exploration of the uses of Greek and Latin literature in later writers, with attention to particularly influential ancient authors (Homer, Vergil, Ovid, and others), to a range of modern authors, and to the varieties of literary influence and intertextuality.

220 THE ENGLISH EPIC

Maud B. McInerney

An exploration of the long narrative poems that shape the epic tradition in anglophone literature. Readings in classical epic and medieval epic, Milton, Romantic epics, and the modern aftermath of epic.

221 THE ANCIENT NOVEL

Robert Germany

222 RETHINKING LATIN AMERICA IN THE CONTEMPORARY NARRATIVE

Aurelia Gomez Unamuno

This course explores literary texts and films produced after the '80s. These texts address political issues including memory, gender, violence, and border, and destabilize foundational identities and mythic representations found in the Latin American Boom narrative.

240 AS THE WORLD TURNED: MILTON AND EARLY MODERN EVOLUTIONS

David Sedley

In this course we will study Milton's major poems and prose in their historical contexts. These contexts are important in at least two ways. On the one hand, they influenced what Milton wrote and how he wrote it. On the other hand, Milton influenced them, in that by writing he sought to alter the courses of the currents of the culture in which he lived. The syllabus focuses, though by no means exclusively, on three inventions of the seventeenth century: what we now call "political theory," what we now call "science," and what we now call "literature." Regarding the first, we will consider Milton's career in light of the English Civil War and the attempts to theorize a political order that did not depend on religious unity and that could survive without a monarch. Concerning the second, we will look at the engagement of Milton's work with the Scientific Revolution and efforts to make knowledge

advance through the use of experiments. In relation to the third, we will examine Milton's role in the establishment of literature as a field that interacts with the new modes of science and politics and yet operates independently of them. A basic issue of the course is therefore the value of literature per se, how that value was constructed, and how it relates to those of other fields that make up modern culture.

242 INTRODUCTION TO VISUAL STUDIES
Erin Schoneveld

247 ANTHROPOLOGY AND LITERATURE: ETHNOGRAPHY OF BLACK AFRICAN WRITING, 1888–1988
Zolani Noonan-Ngwane

250 QUIXOTIC NARRATIVES
Israel Burshatin
Study of Cervantes's Don Quixote and of some of the works of fiction, criticism, philosophy, music, art, and film which have drawn from Cervantes's novel or address its formal and thematic concerns, including self-reflexivity, nation and narration, and constructions of gender, class, and "race" in narrative. Other authors read include Borges, Foucault , Laurence Sterne, Graham Greene, Vladimir Nabo kov, and Kathy Acker.

262 EUROPEAN FILM
Brook Henkel
Beginning with key works of European cinema and the historical avant-garde from the 1920s and '30s (Lang, Vertov, Renoir), this class goes on to explore the post-World War II developments of Italian Neorealism, the French New Wave, and New German Cinema (alongside examples of British and Scandinavian film) up to more recent works like those of Lars von Trier and the Berlin School. Throughout the semester, we challenge such national identifications of European films (imposed largely by critics and the international film-market) and instead stress their shared concerns with history, politics, social transformation, and formal experimentation. We also discuss the considerable (if contentious) overlaps between European art cinema and Hollywood films. Screenings are paired with relevant, primary and secondary film-historical texts as well as key readings in film theory. Films shown with subtitles; readings and discussions in English.

266 IBERIAN ORIENTALISM AND THE NATION
Israel Burshatin

290 HISTORY OF LITERARY THEORY
Deborah H. Roberts
In this course we investigate central texts in literary theory from the Greeks to early 19th-century Europe, with attention to key critical terms and concepts. Topics of discussion include the nature and origin of literary creation, socio-political ideas about the function of poetry and the poet, mimetic models of literature, the roles of art and nature, literature in relation to its audience, theories of genre, defenses of poetry, allegorical interpretation, the idea of the sublime, definitions of the imagination, poetic language, and the application of critical theory to particular texts. Readings include selections from: Plato, Aristotle, Horace, Longinus, Dante, Augustine, Sidney, Corneille, Dryden, Pope, De Stael, Johnson, Wollstonecraft, Wordsworth, Coleridge, Keats, and Shelley. Requirements include five short papers and a final exam. Not open to first-year students.

301 MEDIEVAL ENGLISH LITERATURE
Maud B. McInerney

302 SPEAKNG IN TONGUES
Lindsay V. Reckson
This course proposes to speak the unspeakable, to map the curious congruencies and disjunctions between mystical, aesthetic, and philosophical modes of transcendence.

312 ADVANCED TOPICS
David Sedley, Koffi Anyinefa

321 TOPICS GERMAN LITERATURE
Ulrich Schoenherr
Full Topic Title: "Literature and New Media: From the Gutenberg Galaxy to Cyberspace"
The emergence of new acoustic, visual, and electronic media since the late 19th-century has dramatically changed the status of writing, textuality, and literature. Focusing on modernist as well as contemporary texts, the seminar reconstructs the changing intermedial relationship between the book and its technologically advanced "other" from the print-based medium to the latest digital "Hypertext" novel. The challenges posed by photography, phonography, radio, film, and electronic media prompted writers to rethink and redefine their

declining position vis-à-vis the new technologies which have successfully dethroned the book as the primary storage system of modern society. Oscillating between critical resistance and enthusiastic adaptation, the seminar examines the various responses and strategies of literature in the age of its technological obsolescence. Excerpts from historical and contemporary theories of media (Benjamin, McLuhan, Baudrillard, Kittler et al.) provides the conceptual framework for the analysis of literary models. Readings include texts (and films) by Villiers de l'Isle-Adam, F. Lang, Brecht, Th. Mann, M. Duras, A. Resnais, Cortazar, M. Antonioni, F. Truffaut, Delillo, Beyer, L. Riefenstahl, G. Perec, and Geoff Ryman.

322 POLITICS OF MEMORY

Aurelia Gomez Unamuno

This course explores the issue of memory, the narration of political violence, and the tension between truth and fiction. A selection of documents, visual archives, and documentary films are compared with literary genres including testimonies memories, diaries, poetry, and fiction writing. This course also compares the coup and dictatorship of Pinochet, with the repression of the student movement of 68, and the guerrilla warfare in Mexico.

343 LATIN AMERICAN CITY AND ITS NARRATIVES

Graciela Michelotti

An exploration of how literary and visual arts texts have imagined the Latin American metropolitan space. Students reflect on the representation of urban communities in Latin American cities such as Buenos Aires, Mexico, and Havana among others. Prerequisite: A 200-level course, or consent of the instructor.

351 WRITING AND SOCIAL CONSTRUCTION

Zolani Noonan-Ngwane

This course is an interdisciplinary exploration of writing as a social institution, personal ritual, cultural artifact, and a technology. Beginning with some debates in the social sciences concerning the place of literacy in individual cognitive development and social progress, we proceed to explore some core assumptions about speech and writing in western thought from Plato to recent French feminist theory. The goal of this course is to offer students a genealogical account of anthropological ways of thinking about the human being as a creative agent and a social subject.

377 PROBLEMS IN POSTCOLONIAL LITERATURE: VIOLENCE, TERROR, AND IDENTITY

Rajeswari Mohan

The decisive role that Fanon attributes to violence in the colonial context has had an inexorable afterlife in postcolonial societies. Course texts explore this dialectic of violation and violence, but they present it as a mutating, complex phenomenon, drawing its energies from multiple histories and traditions that are not always centered on the colonial experience.

381 TEXTUAL POLITICS: MARXISM, FEMINISM, AND DECONSTRUCTION

Gustavus T. Stadler

This course addresses theories relating language to culture, history, and power. Theorists studied include Marx, Althusser, Macherey, Volosinov, Williams, Barthes, Derrida, Kristeva, Cixous, and Irigaray.

389 PROBLEMS IN POETICS: THE INTERPRETATION OF LYRIC

Barbara Riebling

An examination of theoretical issues and presentational strategies in various verse structures, from Ovid to Bishop. Close readings of strategically grouped texts explore the interplay of convention and innovation with close attention to rhetorics of desire, external and internal form, and recurrent lyric figures, tropes, and topoi.

397 THE FICTIONS OF ROBERTO BOLANO AND THE RENEWAL OF THE LATIN AMERICAN NOVEL

Roberto Castillo Sandoval

This course explores the transformations in Latin American fiction in the early 19th and late 20th centuries through an extensive examination of the works (essays, poetry, short fiction, and novels) by late Chilean author Roberto Bolano (1953–2003). Prerequisite: At least two previous courses in Spanish at the 200-level or permission from the instructor

399 SENIOR SEMINAR

Israel Burshatin

Oral and written presentations of work in progress, culminating in a senior thesis and comprehensive oral examination.

COURSES OFFERED AT BRYN MAWR

110 IDENTIFICATION IN THE CINEMA
200 INTRODUCTION TO COMPARATIVE LITERATURE
213 APPROCHES THÉORIQUES (ALSO CALLED FRENCH 213)
225 CENSORSHIP: HISTORY AND CONTEXT
234 POSTCOLONIAL LITERATURE IN ENGLISH (ALSO CALLED ENGLISH 234)
239 CLASSICAL TRADITIONS AND SCIENCE FICTION
245 APPROACHES TO GERMAN LITERATURE/ CULTURE: NATION & IDENTITY: POSTWAR AUSTRIA (ALSO CALLED GERMAN 245)
269 ECOLOGIES OF THEATER: PERFORMANCE, PLAY, AND LANDSCAPE
293 THE PLAY OF INTERPRETATION (ALSO CALLED GERMAN 293)
306 FILM THEORY
310 DETECTIVE FICTION
321 ADVANCED TOPICS GERMAN CULTURAL STUDIES: EXILE IN TRANSLATION
322 SPANISH QUEENS, NUNS, AND DEVIANTS
323 CULTURE AND INTERPRETATION (ALSO CALLED PHILOSOPHY 323)
325 ETUDES AVANCES- ECRIRE LA GRANDE GUERRE
332 NOVELAS DE LAS AMERICAS
388 CONTEMPORARY AFRICAN FICTION
398 THEORIES AND METHODS IN COMPARATIVE LITERATURE

COMPUTER SCIENCE

cs.haverford.edu

Computer Science is the representation and manipulation of information: the study of the theory, analysis, design, and implementation of the data structures that represent information and the algorithms that transform them. Computer Science is interdisciplinary, with roots in mathematics, physics and engineering, and with applications in virtually every academic discipline and professional enterprise.

Computer Science at Haverford College emphasizes these fundamental concepts in conjunction with depth of thought and clarity of expression. This approach is consistent with the principles of scientific education in the liberal arts. The aim is to provide students with a base of skills and capabilities which transcend short-term fashions and fluctuations in computer hardware and software. Specific learning objectives are for each student to:

1. **realize their full ability to think deeply.** This involves mastering discipline-specific concepts such as abstraction, correctness and complexity, and recognizing their broad and deep applications, both theoretically and practically, in new contexts.
- Identify the role of abstraction in a computational problem situation; for example, distinguish a general problem from an specific instance, or understand the mapping between an abstract data type (ADT) and a given representation of that ADT
- Develop original, correct solutions demonstrating an appropriate level of abstraction, using two or more design techniques specific to the field
- Express a general solution in an appropriate programming language
- Analyze and compare the efficiency of alternative solutions, both quantitatively and qualitatively
- Increase the confidence in a solution by use various approaches, including proof, testing, and mathematical reasoning

2. **communicate his or her thinking clearly and effectively.** This involves taking a discovered or developed solution (or a given problem definition, etc.) and sharing that solution with peers, managers, clients, and other professionals completely, persuasively and with appropriate use of vocabulary and other tools (e.g., charts, proofs, demonstrations).

3. **identify, interpret and evaluate the theoretical, practical and ethical implications of his or her work in the field.** This work is most easily identified as software, but other results might be papers written and published, projects chosen over others ignored, and even questions raised.

CURRICULUM

Computer Science offers:
- a major
- a concentration for mathematics majors
- a concentration for physics Majors
- a minor.

Computer Science also contributes substantially to the concentration in scientific computing. For details of these programs, visit the Computer Science website (www.cs.haverford.edu/curriculum).

MAJOR REQUIREMENTS

The major program covers the foundations of the discipline and provides a range of elective opportunities.
While the Computer Science major is inspired by guidance from existing professional societies in computing, it is uniquely "Haverfordian" in its emphasis on a collaborative approach to a rigorous field of inquiry. Requirements are:
- Computer Science 105 and 106.
- Computer Science/Math 231 (Discrete Mathematics).
- Computer Science 240, 245, 340, and 345.
- Computer Science 350 or 355 or 356.
- One additional 300 level course in computer science, and two additional courses numbered

200 or higher (or related courses in math or physics).
- Computer Science 480 project and paper.

COMPUTER SCIENCE CONCENTRATION FOR MATHEMATICS MAJORS REQUIREMENTS

Computer Science is an interdisciplinary field with roots in mathematics, along with physics and engineering. Requirements are:
- Computer Science 105 and 106.
- Either Computer Science 240 or 245.
- Either Computer Science 340 or 345.
- One additional computer science course numbered 300 or higher.
- One additional computer science course numbered 200 or higher, or a related course in mathematics or physics (such as Math 203, 210, 218, 231, 235, 236, 237, 250, or Physics 316, 322).

COMPUTER SCIENCE CONCENTRATION FOR PHYSICS MAJORS REQUIREMENTS

- Computer Science 105 and 106.
- Physics 316 (Electronic Instrumentation and Computers).
- Either Physics 322 (Solid State Physics) or Computer Science/Physics 304 (Computational Physics).
- Two additional courses numbered 200 or higher from the Haverford or Bryn Mawr computer science programs.

CONCENTRATION IN SCIENTIFIC COMPUTING

For Mathematics, Physics, Chemistry, Biology, Economics, and Astronomy majors:
see the separate Scientific Computing section in this catalog.

COMPUTER SCIENCE MINOR REQUIREMENTS

- Computer Science 105 and 106.
- Computer Science/Math 231 (Discrete Mathematics).
- Either Computer Science 240 and (355 or 356), or Computer Science 245 and 350.
- Either Computer Science 340 or 345.

FACULTY

Steven Lindell
Professor

John P. Dougherty
Associate Professor and Lab Coordinator

David G. Wonnacott
Associate Professor

Sorelle A. Friedler
Assistant Professor

AFFILIATED FACULTY

Lynne Butler
Professor of Mathematics

Curtis Greene
J. McLain King Professor of Mathematics

Robert Manning
William H. and Johanna A. Harris Distinguished Professor of Computational Science

Philip M. Meneely
Professor of Biology

Walter Smith
Professor of Physics
Peter Love
Associate Professor of Physics

AT BRYN MAWR COLLEGE:

Professor Deepak Kumar
Associate Professor Douglas Blank

Dianna Xu
Associate Professor

COURSES

105 INTRODUCTION TO COMPUTER SCIENCE

John P. Dougherty
Introduction to the intellectual and software tools used to create and study algorithms: formal and informal problem specification; problem solving and algorithm design techniques; reliability, proofs, and testing techniques; program clarity, complexity and efficiency; functional and imperative paradigms; and associated programming skills. Weekly programming laboratory section.

106 INTRODUCTION TO DATA STRUCTURES

John P. Dougherty
Overview of the intellectual and software tools used to create and study data structures: specification of data types; abstraction and representation; reasoning tools to study

correctness and efficiency; classic data structures for collections (set, vector, list, stack, queue, tree, graph); and an introduction to object-orientated programming. Weekly programming laboratory section.

107 INTRODUCTION TO COMPUTER SCIENCE AND DATA STRUCTURES

David Wonnacott

An accelerated treatment of CMSC 105/106 for students with significant programming experience. Reviews programming paradigms, while focusing on techniques for reasoning about about software: methodical testing, formal verification, code reviews, and other topics as time permits. Includes lab work. Fulfills CCNC concentration requirement. Pre-Requisite(s): Placement by the Computer Science Department. Note: Students taking CMSC 107 may not then receive credit for either CMSC 105 or CMSC 106. Students who have taken CMSC 105 or 106 may not take CMSC 107. Enrollment Limit: 15. Preference to Freshmen, then Sophomores, and then Seniors and Juniors.

240 PRINCIPLES OF COMPUTER ORGANIZATION

John P. Dougherty

Treatment of the hierarchical design of modern digital computers: boolean logic/algebra; sequential state systems; register machines; instruction sets; memory organization; and assembly language programming. Lectures cover the theoretical aspects of system architecture; labs provide implementation experience via a hardware simulator.

287 HIGH PERFORMANCE SCIENTIFIC COMPUTING

John P. Dougherty

Introduction to parallel and distributed systems and approaches found in scientific computing, including computational and data intensive applications. Primary lab work on a cluster of Linux workstations with MPI; we also cover other architectures and approaches.

340 ANALYSIS OF ALGORITHMS

Sorelle A. Friedler

345 THEORY OF COMPUTATION

Steven Lindell

Introduction to the mathematical foundations of computer science: finite state automata, formal languages and grammars, Turing machines, computability, unsolvability, and computational complexity.

356 CONCURRENCY AND CODESIGN IN OPERATING SYSTEMS

David Wonnacott

A practical introduction to the principles of shared-memory concurrent programming and of hardware/software co-design, which together underlie modern operating systems; includes a substantial laboratory component, currently using Java's high-level concurrency and the HERA architecture.

394 ADVANCED TOPICS IN THEORETICAL COMPUTER SCIENCE AND DISCRETE MATHEMATICS

Lynne M. Butler

395 MOBILE DEVELOPMENT FOR SOCIAL CHANGE

Sorelle A. Friedler

An advanced course focusing on standard software engineering principles, object oriented programming, event-driven and multi-threaded programming, Android-specific mobile development concepts, and designing a positive user experience in the context of a semester-long placement with a local non-profit.

399 SENIOR THESIS

David Wonnacott, John P. Dougherty

Taken for a half credit in both the fall and spring semesters, in order to prepare the thesis. Seminar for seniors writing theses, dealing with the oral and written exposition of advanced material.

480 INDEPENDENT STUDY

Sorelle A. Friedler

COURSES OFFERED AT BRYN MAWR

FALL

110 INTRODUCTION TO COMPUTING
206 INTRODUCTION TO DATA STRUCTURES
231 DISCRETE MATHEMATICS I
245 PRINCIPLES OF PROGRAMMING LANGUAGES
246 PROGRAMMING PARADIGMS
312 COMPUTER GRAPHICS
380 RECENT ADVANCES IN COMPUTER SCIENCE: DATA SCIENCE
403 INDEPENDENT STUDY

SPRING

110 INTRODUCTION TO COMPUTING
206 INTRODUCTION TO DATA STRUCTURES
231 DISCRETE MATHEMATICS I
250 COMPUTATIONAL MODELS IN THE SCIENCES
372 INTRODUCTION TO ARTIFICIAL INTELLIGENCE
399 SENIOR CONFERENCE

CONCENTRATION IN SCIENTIFIC COMPUTING

Many disciplines in the natural and social sciences include a significant sub-discipline that is explicitly computational. Examples include astronomy, biology, chemistry, economics, and physics. In some fields, such as biology, the use of computation has become so widespread that basic literacy in computation is increasingly important and may soon be required.
The concentration in scientific computing (haverford.edu/catalog/concentrations/scientific_computing.php) gives students an opportunity to develop a basic facility with the tools and concepts involved in applying computation to a scientific problem, and to explore the specific computational aspects of their own major disciplines.

CURRICULUM

The concentration consists of six credits that fall into four categories of requirements (denoted A, B, C, and D, below). These are categorical labels only and do not require a time-ordered sequence. In fact, many students in fields other than Computer Science take at least one course in the B and/or C requirements before discovering an interest in the concentration, and then take courses to satisfy the other requirements.

For Mathematics, Physics, Chemistry, Biology, Economics and Astronomy majors: See the separate sections in this catalog.

CONCENTRATION IN SCIENTIFIC COMPUTING (CSC) REQUIREMENTS

- Three of the six required courses focus on general issues of computing (see Requirements A and B, below):
  i. two of these serve as an introduction to computer science and programming
  ii. the third focuses on the use of computation within a specific scientific discipline.
- Students then choose the remaining three courses from a list of electives (see Requirement C), using at least two to connect their computational work with their major (recall that students must also count 2–3 courses for a concentration toward the student's major).
- Finally, the student must also complete a project-based experience, possibly during the completion of one of the courses (Requirement D).

Students should select the six courses from the following list and have them approved by the student's concentration advisor.

- Of the six credits required for the concentration, no more than two (2) of the courses in (B) or (C) may count towards both the SC concentration and the student's major.
- Students may not count among the 32 course credits required for graduation any course that substantially repeats the content of another course already completed (even though the course numbers may suggest an advancing sequence). For example, students cannot take both introductory computer science courses (CS H105 and CS B110) for credit.)

CATEGORIES OF REQUIREMENTS

A. Yearlong introduction to Computer Science and programming, which may consist of (CS H105 and CS H106) or (CS B110 and CS B206) or (CS H107)

B. One course involving regular programming assignments and becoming familiar with discipline-specific programming idioms, chosen from:

- Astronomy H341 (Advanced Topics in Astrophysics: Observational Astronomy)
- Astronomy H342 (Advanced Topics in Astrophysics: Modern Galactic Astronomy)
- Astronomy H344 (Advanced Topics in Astrophysics: Computational Astrophysics)
- Computer Science H187 (Scientific Computing-Discrete Problems)
- Computer Science H207 (Data Science and Visualization)
- Computer Science B250 (Computational

Models in the Sciences)
- Computer Science H287 (High Performance Scientific Computing)
- Chemistry H304 (Statistical Thermodynamics and Kinetics)
- Chemistry H305 (Quantum Chemistry)
- Math H222 (Scientific Computing-Continuous Problems)
- Physics H304 (Computational Physics)

C. Three credits worth of electives that investigate real-world phenomena using computation at a significant level, as the standards of that discipline determine. At least one of these three credits must come from a 300-level course or courses (not senior research). A normative route in the sciences would be for a student to take two taught courses on this list and apply one credit of senior research to this requirement. Alternatively, students whose senior work is not computational but who still wish to pursue the concentration can complete three taught courses from this list. Students should draw these courses from:
- Any of the courses on the (B) list above
- Biology H300 (Superlab)
- Biology H301 (Advanced Genetic Analysis; 1/2 credit)
- Biology H354 (Computational Genomics; 1/2 credit)
- Biology H357 (Protein Design; 1/2 credit)
- Chemistry B322 (Advanced Physical Chemistry: Mathematical Modeling and Natural Processes)
- CS B120 (Visualizing Information)
- CS H225 (Fundamentals of Databases)
- CS H235 (Information and Coding Theory)
- CS B250 (Computational Models in the Sciences)
- Economics S032 (Operations Research)
- Math H204/B210 (Differential Equations), in years in which it includes significant computer lab exercises involving modeling and/or simulation
- Math H210 (Linear Optimization and Game Theory)
- Math H286 (Applied Multivariate Statistical Analysis)
- Math H394 (Advanced Topics in Computer Science and Discrete Math)
- Math H397 (Advanced Topics in Applied Math)
- Math S056 (Modeling)
- Physics B306 (Mathematical Methods in the Physical Sciences)
- Physics H316 (Electronic Instrumentation and Computers)
- Physics S026 (Chaos, Fractals, Complexity, Self-Organization, and Emergence)
- Up to 1 credit of senior research (e.g., Astronomy H404, Bio H40x, Chemistry H361, CS H480, Math H399, or Physics H41x), if the project has a significant focus on scientific computing

D. A project-based experience in which the student applies computation to investigate a real-world phenomenon, e.g., a:
- senior thesis/experience with significant scientific computing component, or
- summer research experience, or
- multi-week project for a course that may (or may not) be one of the three electives that fulfill requirement (C).

CONCENTRATION COORDINATORS AND DEPARTMENTAL REPRESENTATIVES

Joshua Schrier
Concentration Coordinator and Chemistry representative; Assistant Professor of Chemistry

Robert Manning
Mathematics representative,
William H. and Johanna A. Harris Associate Professor of Computational Science

Philip Meneely
Biology representative, Professor of Biology

Beth Wilman
Astronomy and Physics representative, Associate Professor of Astronomy and Physics

EAST ASIAN LANGUAGES AND CULTURE (BI-CO)

haverford.edu/ealc

The Bi-College (Bi-Co) Department of EALC links rigorous language training to the study of East Asian—particularly Chinese and Japanese—culture and society. In addition to our intensive programs in Chinese and Japanese languages, departmental faculty offer courses in East Asian literature, religion, film, art and visual culture, and social and intellectual history.

EALC has four learning goals:

- Laying the foundations for proficiency in Japanese or Chinese language and culture.
- Gaining some broad knowledge of the East Asian cultural sphere and its history.
- Learning the basic academic skills of bibliographic research, citation style, and gaining an appreciation for various types of sources and their uses.
- Embarking on and completing a major independent research project.

The intellectual orientation of the Department of EALC is centered on primary textual and visual sources; we focus on East Asia's rich cultural traditions as a way to understand its present, through the study of a wide range of literary and historical texts (in translation and in the original), images, film, and scholarly books and articles. We encourage all students interested in this humanistic approach to the study of China, Japan, and East Asia to consider the EALC major.

We also work closely with affiliated faculty in the Bi-Co and Tri-Co community who approach East Asia from the perspective of such social science disciplines as anthropology, economics, political science, sociology, and the growth and structure of cities, as well as with faculty in history, music, religion, and philosophy. We encourage our majors to take advantage of these programs to supplement their EALC coursework. However, students will take most courses in the major within the department itself. We also offer an EALC minor, described below.

EAST ASIAN LANGUAGES

CHINESE PROGRAM

The Bi-Co Chinese Program offers five years of instruction in Mandarin Chinese.

- First-year Chinese (CNSE 001–002) and Second-year Chinese (CNSE 003–004) both have master and drill sections.
- First-year Chinese (CNSE 001–002) is a year-long course. Students must complete both semesters to receive credit.
- We offer Advanced Chinese each semester with a different topic; students can take this as Fourth- or Fifth-year Chinese, with one credit per semester, and repeat the course as long as the topics differ.
- We offer CNSE007-008 for students with a background in Chinese, based on results of a placement test. Upon completion of this full-year sequence, students move on to Second-year Chinese.

The approved Study Abroad program for Chinese is CET (China Educational Tours, http://cetacademicprograms.com). If you have questions, contact the Director of the Chinese Program, Shizhe Huang (shuang@haverford.edu), who also serves as the advisor for Chinese Minor.

JAPANESE PROGRAM

The Bi-College Japanese Program offers four years of instruction in modern Japanese.

- First-year Japanese (JNSE 001–002), taught at Haverford, is six hours (one hour on MWF and ninety minutes on Tues. and Thurs.) per week; unlike Chinese language courses, there is no distinction between master and drill sections. Students should register for one of the Mon./Weds./Fri. sessions and choose one of the Tues./Thurs. sessions.
- Second through Fourth-year (Advanced) Japanese (JNSE 003–004, JNSE 101–102, and JNSE 201A/B) all meet at Haverford.
- The first-year and second-year courses in Japanese (JNSE 001–002 and 003–004,

respectively) meet five days a week.
- For the first-year courses, students must complete both semesters in order to obtain credit, whereas students earn credit for each semester for the second-year courses and above.

If you have questions, contact Tetsuya Sato (tsato@haverford.edu).

CURRICULUM

MAJOR

I. Language Requirement (2 credits)
We require EALC majors to demonstrate third-year-level competence in Chinese or Japanese, either by passing a placement assessment or completing the relevant third-year course (CNSE 101–102 or JNSE 101–102). The University of Pennsylvania offers Korean language instruction, but it does not count towards the Bi-Co EALC major.

II. Three Core Courses (3 credits)
We require that, beyond demonstrating language competence, EALC majors take THREE core courses from the following:
1. One 100-level course on China from among 110 (Introduction to Chinese Lit.), 120 (Individual and Society in China), or 131 (Chinese Civ.); and
2. One 100-level course on Japan from among 132 (Japanese Civ.) or a variety of new 100-level courses on Japan (currently being developed); and
3. EALC 200 (Methods and Approaches to East Asian Cultures).

- EALC 200 is required of all EALC majors and minors. We urge majors to take 200 in the spring of their sophomore year; minors may take it during their junior or senior year.
- EALC 200 is the designated departmental Writing Intensive course (30 pages of writing), which Bryn Mawr now requires of all departments.

Students must earn a grade of 2.0 or higher to continue in the major and be eligible to write a senior thesis.

III. Three Departmental Elective Courses (3 credits)
Majors must take THREE additional non-language courses offered by members of the Bi-Co EALC Department (Glassman, Jiang, Kwa, Schoneveld, Smith).
- When signing up for the major, students should work with the departmental co-chair on their campus to select courses that are intellectually complementary.
- At least one of these courses must be at the 300 level.

Majors cannot satisfy the Departmental Elective Courses by courses outside the department, or by taking courses abroad.

IV. Two non-departmental courses related to East Asia (2 credits)
In order to encourage a sampling of approaches to East Asia beyond EALC or the Bi- Co community, we require students to take two courses related to East Asia from the wider array of courses offered outside the Department and/or from study abroad courses that their advisor has approved.
- At least one of these courses must be at the 300 level.
- Students may not substitute these courses for the three Core and three elective courses the EALC faculty offers.

V. The Senior Thesis (1 credit)
We require students to complete a senior thesis (EALC 398, 1 credit). Although students will do the majority of their thesis during the Fall semester, they will complete and formally present final drafts early in the Spring semester.

EALC MINOR

The EALC Department certifies three minors:
- Chinese language (advisor: Shizhe Huang) and Japanese language (advisor: Tetsuya Sato); these two language minors both require six language courses, and students may fulfilled them concurrently with the EALC major.
- EALC (advisors: EALC co-chairs), which requires six courses, all of which students must take from among courses the EALC departmental faculty offers. The mix must include EALC 200 and one 300-level course.

The Global Asia concentration, which is currently under discussion within the department, will serve minors with a focus on other aspects of East Asia.

PLACEMENT TESTS

The two language programs conduct placement

tests for first-time students at all levels in the week before classes start in the fall semester.

- To qualify for third-year language courses, students need to finish Second-year courses with a score of 3.0 or above in all four areas of training: Listening, speaking, reading, and writing.
- In the event that students do not meet the minimum grade at the conclusion of Second-year language study, they must consult with the director of the respective language program and work out a summer study plan that may include taking summer courses or studying on their own under supervision.
- Students must take a placement test before starting Third-year language study in the fall.
- Students who do not finish Third-year with a score at or higher than 3.0 in any of the four areas must also take a placement exam before entering Fourth-year.

EALC HONORS REQUIREMENTS

The departmental faculty awards honors on the basis of superior performance in two areas: coursework in major-related courses (including language classes), and the senior thesis. The faculty requires a minimum 3.7 average in major-related coursework to consider a student for honors.

STUDY ABROAD

The Department of EALC strongly recommends that majors study abroad to maximize their language proficiency and cultural familiarity. We require formal approval by the study abroad adviser prior to the student's travel. Without this approval, credit for courses taken abroad may not be accepted by the EALC Department. If study abroad is not practical, students may consider attending certain intensive summer schools that the EALC Department has approved. Students must work out these plans in concert with the department's study abroad advisor and the student's dean.

FACULTY

CHINESE LANGUAGE FACULTY

AT HAVERFORD

Shizhe Huang
C.V. Starr Professor of Asian Studies; Associate Professor of Chinese and Linguistics; Director of the Chinese Language Program

Tsung Tsai
Drill Instructor, Chinese Language Program

AT BRYN MAWR

Changchun Zhang
Instructor, Associate Director of the Chinese Language Program

Tz'u Chiang
Senior Lecturer, Chinese Language Program

JAPANESE LANGUAGE FACULTY

AT HAVERFORD

Tetsuya Sato
Senior Lecturer and Director of the Japanese Language Program

Kimiko Suzuki Benjamin
Instructor, Japanese Language Program

Minako Kobayashi
Japanese Drill Instructor

FACULTY IN HISTORY, LITERATURE, AND CULTURE

AT HAVERFORD

Paul Jakov Smith
John R. Coleman Professor of Social Sciences, Professor of History and Co-chair of the Department (History of China, East Asia, and the Global Order)

Hank Glassman
Associate Professor of East Asian Languages and Cultures (Premodern Japanese History and Culture, and East Asian Religions)

Erin Schoneveld
Assistant Professor of East Asian Languages and Cultures (Japanese Art History, Literature, Visual Culture, and Film)

AT BRYN MAWR

Yonglin Jiang
Associate Professor of East Asian Languages and Cultures on the Jye Chu Lectureship in Chinese Studies and Co-chair of the Department (History of Chinese Law, Environment, and Human Rights)

Shiamin Kwa
Assistant Professor of East Asian Languages and Cultures (Chinese Literature, Culture, and Film)

COURSES

120 CHINESE PERSPECTIVES ON THE INDIVIDUAL AND SOCIETY

Paul Jakov Smith
A survey of philosophical, literary, legal, and autobiographical sources on Chinese notions of the individual in traditional and modern China. Particular emphasis is placed on identifying how ideal and actual relationships between the individual and society vary across class and gender and over time. Special attention is paid to the early 20th century, when Western ideas about the individual begin to penetrate Chinese literature and political discourse.

132 JAPANESE CIVILIZATION

Hank Glassman
A broad chronological survey of Japanese culture and society from the earliest times to the present, with special reference to such topics as belief, family, language, the arts, and sociopolitical organization. Readings include primary sources in English translation and secondary studies.

200 MAJOR SEMINAR: METHODS AND APPROACHES IN EAST ASIAN STUDIES

Paul Jakov Smith
This course introduces current and prospective majors to the scope and methods of East Asian Studies. It employs readings on East Asian history and culture as a platform in critical analysis, bibliography, cartography, and the formulation of research topics and approaches. It culminates in a substantial research essay.

201 INTRODUCTION TO BUDDHISM

Hank Glassman
Focusing on the East Asian Buddhist tradition, the course examines Buddhist philosophy, doctrine, and practice as textual traditions and as lived religion.

219 MODERN AND CONTEMPORARY EAST ASIAN ART AND VISUAL CULTURE

Erin Schoneveld
This course examines the development of modern and contemporary art and visual culture in China, Japan and Korea from the early 20th century to the present day, with a focus on photography, sculpture, painting, film, propaganda, and performance art.

230 POSTWAR JAPANESE CINEMA

Erin Schoneveld
This course provides an introduction to Japanese cinema from the immediate Postwar period of 1945 to the present day. Focusing on films by influential directors including Ozu Yasujirō, Kurosawa Akira, and Mizoguchi Kenji among others, we consider how Japanese filmmakers use cinema to investigate issues of truth, beauty, identity, and nationhood in an attempt to answer fundamental questions regarding life and death in Japans Postwar period.

256 ZEN THOUGHT, ZEN CULTURE, ZEN HISTORY

Hank Glassman
What are we talking about when we talk about Zen? This course is an introduction to the intellectual and cultural history of the style of Buddhism known as Zen in Japanese. We examine the development and expression of this religious movement in China, Korea, Japan, and Vietnam.

263 CHINESE REVOLUTION

Paul Jakov Smith
Places the causes and consequences of the Communist Revolution of 1949 in historical perspective, by examining its late-imperial antecedents and tracing how the revolution has (and has not) transformed China, including the lives of such key revolutionary supporters as the peasantry, women, and intellectuals.

310 SEX AND GENDER IN JAPANESE BUDDHISM

Hank Glassman
In this seminar we examine the intersection of religion and gender in Japanese literature from

the 8th to the 16th centuries. The course assumes no prior academic experience in gender, literature, religion, or Japanese culture. It does require openness, curiosity, and a willingness to talk and listen.

335 MODERN ART OF JAPAN

Erin Schoneveld

This curatorial seminar examines the technological shifts and cultural transformations that have shaped Japanese artistic production and practice from the early 20th-century through the present day. Readings from pre-modern through contemporary sources, film screenings, and museum fieldtrips, will be included.

347 QUAKERS IN EAST ASIA

Paul Jakov Smith

The principal goal of this research seminar is to explore Haverford's rich Quaker archive as a source of first-hand information about East Asia from the late 19th through the mid-20th century. We collectively survey the major documentary holdings, supplemented by material in the American Friends Service Committee archives, as a prelude to your individual research projects on aspects of the Friends' educational, social, medical, and evangelical missions in China and Japan and what they tell us about East-West relations in an era of imperialism and war. Open to History and EAS majors, and others with permission of the instructor.

398 SENIOR SEMINAR

Erin Schoneveld

CHINESE COURSES

001 INTENSIVE FIRST-YEAR CHINESE

Changchun Zhang

An intensive introductory course in modern spoken and written Chinese. The development of oral-aural skills is integrated through grammar explanations and drill sessions designed to reinforce new material through active practice. Six hours a week of lecture and oral practice, plus individual conference. This is a year-long course; both semesters are required for credit (CNSE 001 and 002).

002 INTENSIVE FIRST-YEAR CHINESE

Changchun Zhang

An intensive introductory course in modern spoken and written Chinese. The development of oral-aural skills is integrated through grammar explanations and drill sessions designed to reinforce new material through active practice. Six hours a week of lecture and oral practice, plus individual conference. This is a year-long course; both semesters are required for credit (CNSE 001 and 002).

101 THIRD-YEAR CHINESE

Changchun Zhang

A focus on overall language skills through reading and discussion of modern short stories, as well as on students facility in written and oral expression through readings in modern drama and screenplays. Readings include representative works from the May Fourth Period (1919–27) to the present. The course uses audio and videotapes of drama and films as study aids.

102 THIRD YEAR CHINESE

Changchun Zhang

A focus on overall language skills through reading and discussion of modern short stories, as well as on students facility in written and oral expression through readings in modern drama and screenplays. Readings include representative works from the May Fourth Period (1919–27) to the present. The course uses audio- and videotapes of drama and films as study aids.

201 ADVANCED CHINESE

Shizhe Huang

Development of language ability in the areas of modern Chinese literature, history, and/or philosophy. Speaking and reading skills are equally emphasized through a consideration of the intellectual, historical, and social significance of representative works.

202 ADVANCED CHINESE

Shizhe Huang

Development of language ability in the areas of modern Chinese literature, history, and/or philosophy. Speaking and reading skills are equally emphasized through a consideration of the intellectual, historical, and social significance of representative works.

JAPANESE COURSES

002 FIRST-YEAR JAPANESE (INTENSIVE)

Tetsuya Sato

An introduction to the four basic skills (reading, writing, speaking, and listening), with special emphasis on the development of conversational fluency in socio-cultural contexts. Six hours per week of lecture and oral practice. This is a year-long course; both semesters (001 and 002) are required for credit. Students must choose one Drill Session.

003 SECOND-YEAR JAPANESE

Kimiko Benjamin, Minako Kobayashi

A continuation of first-year Japanese, with a focus on the further development of oral proficiency, along with reading and writing skills. Five hours per week of lecture and oral practice. This is not a year-long course. Students must choose one drill session.

004 SECOND-YEAR JAPANESE

Kimiko Benjamin

A continuation of first-year Japanese, with a focus on the further development of oral proficiency, along with reading and writing skills. Five days a week of lecture and oral practice. This is not a year-long course. Students must choose one drill session: Tues/Th 10:00–11:30 a.m. or Tues/Th 11:30 a.m.–1:00 p.m.

101 THIRD-YEAR JAPANESE

Tetsuya Sato

A continuation of language study with further development of oral proficiency. Emphasis on reading and discussing simple texts. Advanced study of grammar and kanji; introduction to composition writing. Three hours of class, one hour of oral practice. Plus one hour of drill session.

102 THIRD-YEAR JAPANESE

Kimiko Benjamin

A continuation of language study with further development of oral proficiency and reading/writing skills. Emphasis on reading and discussing simple texts. Advanced study of grammar and kanji; more training in opinion essay and report writing. Additional oral practice outside of classroom expected.

201 ADVANCED JAPANESE

Kimiko Benjamin

Continued training in modern Japanese, with particular emphasis on reading texts, mastery of the kanji, and expansion of vocabulary. Explores variety of genres and text types using authentic materials.

201 ADVANCED JAPANESE

Tetsuya Sato

Continued training in modern Japanese, with particular emphasis on reading texts, mastery of the kanji, and expansion of vocabulary. Explores variety of genres and text types using authentic materials.

ECONOMICS

haverford.edu/economics

Economics provides a basis for understanding and evaluating economic behavior and relations at all levels of society. Microeconomics focuses on the behavior of individuals and firms and how they interact in markets for goods, services, labor, and assets. Macroeconomics focuses on the behavior of aggregate economic variables, such as GNP, the inflation rate, the unemployment rate, the interest rate, and the budget deficit, and how they relate at the economy-wide level. Other areas of economics focus on specific aspects of micro- and macroeconomics as they are applied to diverse situations and economies around the world. Most of modern economics is structured around a common set of theoretical ideas and analytic methods that unify the field. These tools aid in understanding both how the economic world works and how it can be affected by public policies and world events.

The learning goals of the department are for students to:
• achieve competency in the building blocks of economic theory: assumptions about the behavior of economic actors and predictions concerning markets outcomes; a macroeconomic school of thought about the aggregate economy in a domestic and a world setting.
• learn to think like economists: Contextualize and critique theoretical arguments developed from or alternative to economic theory and use economic arguments to understand and explain real-world problems and assess policy proposals.
• Students will achieve competency in statistics and econometrics.
• communicate as economists and will effectively and persuasively present their work: mathematically, graphically, in writing, and orally.
• develop and execute an original economics research project.

CURRICULUM

The introductory course, Economics 105 or 106, introduces and develops these ideas and methods at an elementary level, while also presenting information about markets, economies, and governmental policy that is important to a liberal education. This course provides an overview of economics and a strong foundation for more advanced work in economics.

The intermediate (200-level) courses offer material on many different economic topics. These courses require Economics 105 or 106 as a prerequisite, and are designed to be useful to non-majors as well as minors and majors. Economics 203 (Statistical Methods in Economics) or Economics 204 (Economics Statistics with Calculus) followed by Economics 304 (Introduction to Econometrics) give students the necessary methodological training. Statistical methods in empirical research are important for students who will be reading original economics articles and conducting their own research.

The advanced (300-level) courses involve a more technically sophisticated approach to analyzing many of the same topics in economics, given that modern economics continues to expand in its use of mathematically sophisticated models and statistical techniques.

• The advanced theory courses of Economics 300 and Economics 302 follow up on the introductory theory course but offer more in-depth and mathematical treatments of these theoretical concepts, which are the building blocks for modern economic thought and research.
• Advanced courses normally require some combination of Economics 203, 300, 302, and 304 as prerequisites
• These courses are designed primarily for economics minors and majors and those who expect to make use of economics in their professional careers.
• In most of the advanced courses, a substantial paper is an important part of the requirements.

MAJOR

• We advise prospective majors to take Economics 105 or 106; 203 or 204; and either Economics 300 or 302 by the end of their sophomore year.
• We require economics majors to take at least two semesters of college-level calculus.
• We encourage students planning to apply to graduate programs in public policy or business to take mathematics through at least Mathematics 121 (Multivariable Calculus III) and at least one computer science course.
• We strongly advise those who are planning to apply to Ph.D. programs in economics to take mathematics through at least Mathematics 215 (Linear Algebra) and Mathematics 317 (Analysis I).
• Economics majors also have the option to pursue a concentration in mathematical economics, which is described under its own heading in this catalog (see page 212).

Students may count most courses in the Bryn Mawr economics department toward the Haverford economics minor and major (with the exception of courses at the 100 level, excluding Economics 105). Similarly, students may count most Haverford economics courses toward the Bryn Mawr economics major. The two economics departments plan their course schedules jointly so that they can offer the maximum variety of economics courses across the two campuses.

SENIOR THESIS

The thesis is an original economic contribution to the field of knowledge in which the thesis is located, in which student demonstrates mastery of the literature surrounding the research question, an understanding of the theoretical underpinnings of the question, and adequate analysis and discussion of results. The year-long, two semester Senior Research Seminar in Economics imparts skills and techniques essential to original independent research projects.
• The first (fall) semester includes workshops on thesis writing skills, data collection and management with Excel and Strata, and presentations by visiting scholars followed by student discussants who critique the paper presented. Each student writes a co-authored discussion paper summarizing and critiquing one of the guest speaker's research articles/papers. By the end of the semester, students develop an original research idea/project that is the basis of the senior thesis.
• Independent work under the guidance of a faculty advisor begins at the end of the first semester and continues throughout the second semester.
• During the second (spring) semester, students develop their thesis through extensive reading, individual sessions with a faculty advisor, and group discussion.

MAJOR REQUIREMENTS

• Economics 105 or 106; Economics 203 or 204, and Economics 300, 302, and 304
• Economics 396, a year-long two-semester Senior Research Seminar. (The first is a group seminar in which students learn salient research skills, listen to and critique work of guest economics speakers, and develop their own research questions; during the second semester students conduct original and independent economics research under the guidance of an economics faculty member.)
• four other semester courses above the 100 level, two at the 300 level. One is a Junior Research Seminar (which develops the student's research skills through exploring topical cutting-edge research and conducting related original projects)
• two semesters of college-level calculus or equivalent.
• Prospective majors are advised to complete Economics 105/106, Economics 203/204 and either Economics 300 or Economics 302 before the end of the sophomore year. Econ 300 (Intermediate Micro) and Econ 302 (Intermediate Macro) must be fulfilled by the end of the Junior Year. It is strongly encouraged that Econ 304 (Econometrics) be fulfilled by the end of the Junior year, but it must be fulfilled by the end of the Fall semester of the Senior year.

With departmental approval, students can take:
• Math 203 to replace Economics 203 or 204
• Math 286 can replace Economics 304.

Fulfillment of an Economics course requires a grade of 2.0 or above.

MINOR REQUIREMENTS

• Economics 105 or 106
• Economics 203 or 204
• Economics 300 or 302

• three other Economics courses at the 200 and/or 300 levels.

Fulfillment of an Economics course requires a grade of 2.0 or above.

REQUIREMENTS FOR HONORS

The department invites economics majors whose grade point average in economics courses at Haverford, Bryn Mawr, or Swarthmore at the beginning of the second semester of the senior year is 3.60 or higher to become a candidate for the degree with honors in economics. The faculty awards honors or high honors on the basis of a student's performance in:

• all economics courses, including those in the second semester of senior year

• an oral examination by department faculty focused on the student's senior thesis.

FACULTY

Anne Preston
Chair and Professor

Richard Ball
Associate Professor

Saleha Jilani
Assistant Professor

Vladimir Kontorovich
Professor

David Owens
Assistant Professor

Giri Parameswaran
Assistant Professor

COURSES

105 INTRODUCTION TO ECONOMICS

Anne Preston, Saleha Jilani, Vladimir Kontorovich, Timothy Lambie-Hanson

An introduction to microeconomic topics—opportunity cost, supply and demand, consumer decision making, the theory of the firm, market structures, and efficiency and market failure—and macroeconomic topics—the determination of GDP, money and interest rates, unemployment and inflation, and fiscal and monetary policy. Because Econ 105 requires graphical and algebraic competency, students are strongly encouraged to take a college-level calculus course either before or concurrently with this course.

203 STATISTICAL METHODS IN ECON

Richard J. Ball

Frequency distributions, probability and sampling theory, simple correlation, and multiple regression, and an introduction to econometric terminology and reasoning. Three class hours and two lab hours.

204 ECONOMIC STATISTICS WITH CALCULUS

Richard J. Ball

An introductory course in statistics aimed primarily at students in economics and other social sciences. The course develops the theoretical groundwork of statistical inference and investigates the application of theoretical principles and methods to real data. Three hours of class plus two hours of lab per week.

206 MICROFINANCE

Shannon B. Mudd

An exploration of microfinance as an alternative approach to meeting the financial needs of the poor and, ideally, to assist in their current and future well-being. The course provides theoretical explanations for its methodology, evaluate empirical research into its impacts and debate important issues in its practice.

209 LAW AND ECONOMICS

Vladimir Kontorovich

Why do rational people follow fixed rules (laws) instead of doing what is best for them in a specific situation? Can there be order without law? Should the government compensate people when it issues environmental and wildlife protection regulations which reduce the value of their property? The lady who burned herself with a cup of McDonalds coffee won several million dollars in compensation. Does that make sense? These and many other questions are addressed as we look at property law, contracts, and torts.

234 ENVIRONMENTAL ECONOMICS

This course explores how economists approach and consider the environment. It is primarily the study of externalities. We will understand the ramifications and solutions of missing market-placing values upon elements not often traded.

237 GAMES AND STRATEGIES IN ECONOMICS
Richard J. Ball
A survey of the major equilibrium concepts of non-cooperative game theory, with an emphasis on applications to economics and related fields.

240 ECONOMIC DEVELOPMENT AND TRANSFORMATION: CHINA VS. INDIA
Saleha Jilani

247 FINANCIAL AND MANAGERIAL ACCOUNTING
Neal Grabell
An introduction to financial accounting concepts, financial reporting, and managerial accounting . The course addresses how accounting measures, records, and reports economic activities for business entities and how decision makers analyze, interpret, and use accounting information.

249 THE SOVIET SYSTEM
Vladimir Kontorovich
The Soviet system was inspired by some of the loftiest ideals of humanity. The entire society was redesigned so as to pursue common goals, rather than conflicting private objectives. The economy was run for people, not profits. The Soviet system is no more, but the ideas on which it was founded will probably always be with us. What does the largest social and economic experiment in history teach us? The course is 1/3 political science and 2/3 economics.

255 CRISES
Timothy Lambie-Hanson
This course studies the many dimensions of the 2008 Financial Crisis and the ensuing macroeconomic recession in much of the industrialized world, through a variety of different perspectives, involving economic history, the history of economic thought, and also modern macroeconomic theory.

298 IMPACT INVESTING
Shannon B. Mudd
Impact investing is investing to generate both a financial return and a positive social benefit. It supports firms seeking to address social, environmental and /or governance problems (ESG) in a sustainable way often within market activity. The focus of this course is to not only gain an understanding of the theory and practice of impact investing across its many components, but also to gain practical experience by assessing a particular set of potential impact investments, making formal presentations of findings to an investment committee leading to a recommendation for investment to a partnering foundation. Pre-requisite(s): Econ 105 or 106

300 INTERMEDIATE MICROECONOMIC ANALYSIS
Vladimir Kontorovich
Microeconomic theory has developed around the analysis of Adam Smith's "invisible hand" conjecture. To test this conjecture, we model the behavior of economic actors (consumers and firms) and their interaction in different markets (for goods, capital and labor). These models allow us to investigate the conditions under which these markets work well, less well, or not at all. In the process, basic tools and concepts used in other areas of economics are developed. Many of the topics covered in Introductory Microeconomics (Econ 101) are studied more rigorously and in greater depth. New topics, such as behavior under risk, insurance, and imperfect information, are introduced.

302 INTERMEDIATE MACROECONOMIC ANALYSIS
Timothy Lambie-Hanson
Analysis of the behavior of aggregate economic variables such as GDP, inflation, unemployment, interest rates, and the budget and trade deficits. Structured around the development of a New Keynesian/Neoclassical general equilibrium model which relates the markets for goods, money, and labor. Specific topics include: determinants of the business cycle, effects of fiscal and monetary policies, supply shocks, and inflationary expectations.

304 INTRODUCTION TO ECONOMETRICS
Anne Preston
Development of econometric theory introduced in Economics 203. Includes topics such as ordinary least squares estimation, weighted least squares estimation, estimation of models with nonlinear forms, instrumental variables, and maximum likelihood estimation. Emphasis is on application of econometric techniques to real economic and social policy issues such as the optimality of speed limit control, AIDS awareness and behavior modification, labor market discrimination, and worker productivity. Students are expected to use data sets to evaluate policy issues and are required to make a final presentation of findings in class.

306 ADVANCED CORPORATE FINANCE

Shannon B. Mudd

This course examines theories and practices of corporate finance and how they have informed each other in their development. The focus is on financing at the firm level. Topics include valuation and risk measures both at the level of individual securities and the level of firms, project analysis, cost of capital, capital budgeting, and financial statement analysis.

314 BEHAVIORAL ECONOMICS

David Owens

This course explores systematic departures of behavior from the predictions of neoclassical economic theory, and when possible, proposes alternative theories to explain this behavior. The course begins with a study of reference-dependent preferences, based on Kahneman and Tversky's seminal paper "Prospect Theory." Further topics include, but are not limited to, present-biased preferences, social preferences and behavioral finance. Students should be comfortable with microeconomic theory, and have some exposure to game theory. The course has a heavy research component, and students should be prepared for critical reading of scholarly articles, and to write and present a research paper of their own.

355 ECONOMICS OF UNCERTAINTY

Giridhar Parameswaran

Using microeconomics we study theories of choice under uncertainty; risk aversion and applications to insurance and portfolio choice; equilibrium under uncertainty in asset markets; asymmetric information; applications to the design of incentives, contracts, contests, and auctions; common; and understanding and coordination.

360 MATHEMATICAL ECONOMICS

Giridhar Parameswaran

A study of advanced mathematical tools used in economic analysis. Topics include eigenvalues and quadratic forms, differential equations, convex programming and dynamic programming. Applications to consumer theory, generalized linear regression, stability of equilibrium, and models of growth and search. Fulfills Mathematic Economics (MTEC) concentration. Pre-Requisite(s): ECON 105, MATH 113, MATH 114 and either MATH 121 or MATH 216. (If the Math department proposal to EPC to merge MATH 113 and MATH 114 into a new course, MATH 118, then this would be the appropriate prerequisite.)

371 JUNIOR RESEARCH SEMINAR: PSYCHOLOGICAL BIASES AND ECONOMIC DECISIONS

David Owens

A seminar-based course covering current research on the role of psychological biases in economic decision-making. The focus is on critical reading of recent work and developing students' own research.

372 JUNIOR RESEARCH SEMINAR: ADVANCED INTERNATIONAL TRADE

Saleha Jilani

This advanced seminar-based course covers topics in international trade theory and policy, with an emphasis on current research topics and developments. We will analyze determinants of international trade and foreign investment, and examine the motivations for and consequences of tariffs and quantitative restrictions on trade. Topics include dynamic comparative advantage, factor movements and multinational corporations, effects of trade on economic growth and income inequality, international trade policy negotiations, agreements and disputes, and economic integration.

377 JUNIOR RESEARCH SEMINAR: POLITICAL ECONOMY

Giridhar Parameswaran

The focus is on critical reading of seminal works and developing students own research skills. Topics include: models of elections and application of voting models to redistributive policies; legislative bargaining; interest groups/ lobbying; dynamic models of fiscal policy, debt, and more.

378 SPORTS AS AN ECONOMICS LAB

Anne Preston

A research seminar analyzing contemporary journal articles which use sports data to answer important economics questions in industrial organization, labor economics, game theory, and behavioral economics.

396 RESEARCH SEMINAR

Saleha Jilani, David Owens, Anne Preston, Giridhar Parameswaran, Richard J. Ball, Vladimir Kontorovich

EDUCATION AND EDUCATIONAL STUDIES (BI-CO)

brynmawr.edu/education

The field of education is about teaching people how to teach—and more. We have built the Bi-College (Bi-Co) Bryn Mawr-Haverford Education Program around four mutually informing pursuits: teacher preparation, the interdisciplinary study of learning as a central human and cultural activity, the investigation of the politics of schooling and students' growth as lifelong reflective educators, learners, researchers, leaders and change agents.

The program addresses students interested in:

- the theory, process and reform of education in the United States
- social justice, activism and working within and against systems of social reproduction
- future work as educators in schools, public or mental health, community or other settings
- examining and re-claiming their own learning and educational goals
- integrating field-based experiential knowledge and academic learning, in the classroom and beyond.

Focused on teaching and learning as social, political, and cultural activities, the Education program invites students to:
- explore the interdisciplinary field of educational studies
- begin the path of teacher preparation for traditional classrooms
- participate in teaching experiences in a range of classroom and extra-classroom settings
- explore the relationships among schooling, human development, and society
- gain knowledge and skills of educational theory and practice
- engage meaningfully and creatively with others and struggle in an ongoing way for justice
- facilitate innovative approaches to education while learning from scholars, personal experience, and learners themselves about the promise and problems of education in context.

Given that people of all ages learn through action and reflection, dialogue and silence, collaboration, and struggle, Faculty members integrate students' multiple intelligences, personal experience, and cultural knowledge within the curriculum, to enrich students' inquiries and equip them to do so with the learners they serve.

FIELD PLACEMENT

In keeping with the progressive philosophy of the program, each bi-college education course includes a field component. These placements, in schools and other educational settings, range from eight weekly two hour visits in the introductory course to full-time student teaching in the certification program.

The Bi-Co Education Program offers several options. Haverford students may:

- explore one or more aspects of education in areas of particular interest—such as urban schooling—by enrolling in single courses
- pursue a minor in educational studies
- pursue a minor in education leading to secondary teacher certification
- complete the secondary teacher certification program after they graduate through the Post-Baccalaureate Teacher Education Program
- sub-matriculate as juniors or seniors into the University of Pennsylvania Graduate School of Education's elementary or secondary education master's program (less common)

We advise students that are interested in these options to meet with a program adviser as early as possible for advice on scheduling, preferably by the sophomore year.

MINOR REQUIREMENTS

Students follow one of two tracks:

EDUCATIONAL STUDIES TRACK

The Bi-Co minor in educational studies is an interdisciplinary exploration of the cultural, political, and interactional dimensions of teaching and learning. Designed to bridge field experiences with academic study, and as a liberal arts experience that students may also use as preparation for future work and study, it draws students with a broad range of interests, such as plans for graduate study in education or other social sciences, pursuit of elementary or secondary certification after graduation, or careers in leadership, policy studies, and community development that require educational expertise.

Many professions and pursuits—management and training positions, research, administration and policy work, and careers in social work, health, and law—involve an educator's skills and knowledge. Civic engagement, community development, and work towards social justice also require knowledge of how people learn and change. Because students interested in education-related pursuits major in different subject areas and have different aspirations, we encourage them to design a minor appropriate to their major area of study, their education interests and their anticipated futures.

REQUIREMENTS:

• EDUC 200 (Critical Issues in Education)
• Four education courses, at least two of which must be offered by Education Program or affiliated faculty (J. Cohen/H. Curl/V. Donnay/D. Flaks/A. Lesnick). Up to two may be education courses offered by faculty in other departments (of these, one may be taken at Swarthmore, Penn, or while studying away)
• EDUC 311 (Field Work Seminar)

SECONDARY TEACHER CERTIFICATION TRACK

Students considering a career in secondary education (grades 7–12) may complete a minor in education while meeting the requirements for a Pennsylvania secondary teacher certification. Our program is accredited to prepare undergraduates and alumni for certification in: biology, chemistry, Earth and Space Sciences, English, mathematics, physics, social studies, and world languages, including French, Latin, and Spanish. Pursuit of certification in Chinese, German, and Russian is also possible, if the student can find a teaching placement. Students certified in a world language have K–12 certification.

REQUIREMENTS:

• EDUC 200 (Critical Issues in Education)
• PSYC 203 (Educational Psychology)
• EDUC 210 (Perspectives on Special Education)
• EDUC 275 (English Learners in U.S. Schools)
• EDUC 301 (Curriculum and Pedagogy)
• EDUC 302 (Practice Teaching Seminar)
• EDUC 303 (Practice Teaching) two credits for 12 weeks, full-time, in a local school
• two courses in English and two courses in math
• maintain a grade point average of 3.0 or higher
• pass a series of exams for beginning teachers

To qualify for a teaching certificate, students must also complete a major in the area in which they seek certification and often additional coursework in their certification area. (In the case of social studies, students must major in history, political science, economics, anthropology, sociology or growth and structure of cities and take courses outside their major in the other areas). Within their major, students must select courses that help them meet the state standards for teachers in that subject area.

To be admitted to the student teaching phase of the certification program, students must have received positive evaluations from field mentors and be recommended by the Education Program as well as their major department.

Note: Students practice-teach full time for 12 weeks in a local school during the spring semester of their senior year. Given the demanding teaching schedule of EDUC 303 during the spring of senior year, students are not able to take courses other than EDUC 302 and the senior seminar for their major.

Graduates may also complete the requirements for secondary teacher certification in a post-baccalaureate program.

TITLE II REPORTING

Title II of the High Education Act (HEA) requires that a full teacher preparation report, including the institution's pass rate on

assessments as well as the state's pass rate, be available to the public on request. Students may request a report from Ann Brown at abrown@brynmawr.edu or (610) 526-5376.

FACULTY

Ann Brown (Staff)
Program Coordinator and Adviser

Jody Cohen
Term Professor and Acting Director, Fall 2014

Alison Cook-Sather
Professor

Heather Curl
Lecturer

Debbie Flaks
Lecturer

Alice Lesnick
Term Professor and Director (on leave, Fall 2014)

COURSES AT HAVERFORD

200 CRITICAL ISSUES IN EDUC

Heather D. Curl
Designed to be the first course for students interested in pursuing one of the options offered through the Education Program, this course is also open to students who are not yet certain about their career aspirations but are interested in educational issues. The course examines major issues in education in the United States within the conceptual framework of educational reform. The first phase of the course invites students to recognize and question prevailing assumptions, their own and those of the broader society, about authority, the political nature of knowledge, and the purposes of schooling that shape education in America. The second phase analyzes components of the teaching and learning process. The third phase seeks to engage students in imagining and enacting, through the completion of collaborative teaching projects, possibilities for reform and reinvention. Two hours a week of fieldwork are required. Enrollment is limited to 25 students with priority given to students pursuing certification or the minor in educational studies.

208 HIGHER EDUCATION AND THE LIBERAL ARTS

Daniel H. Weiss
This course will examine the distinct roles of residential liberal arts colleges in the United States, the current structure and practices of liberal arts colleges, and the future of this type of undergraduate education in the United States.

270 MEASURING EDUCATION

Matthew McKeever
This course explores contemporary political movements to measure learning outcomes in educational institutions. It covers such topics as NCLB legislation, standardized testing for college admissions, assessment of college education, and development of online learning tools.

275 ENGLISH LEARNERS IN THE U.S.

Heather D. Curl
This course focuses on educational policies and practices related to language minority students in the U.S. We examine English learners' diverse experiences, educators' approaches to working with linguistically diverse students, programs that address their strengths and needs, links between schools and communities, and issues of policy and advocacy. This is a Praxis II course (weekly fieldwork in a school or other educational setting).

301 CURRICULUM AND PEDAGOGY SEMINAR

Heather D. Curl
A consideration of theoretical and applied issues related to effective curriculum design, pedagogical approaches and related issues of teaching and learning. Fieldwork is required. Enrollment is limited to 15 with priority given first to students pursuing certification and second to seniors planning to teach.

302 PRACTICE TEACHING SEMINAR

Heather D. Curl
Drawing on participants diverse student teaching placements, this seminar invites exploration and analysis of ideas, perspectives and approaches to teaching at the middle and secondary levels. Taken concurrently with Practice Teaching. Open only to students engaged in practice teaching.

311 FIELD WORK SEMINAR

Heather D. Curl
Drawing on the diverse contexts in which participants complete their fieldwork, this seminar invites exploration and analysis of ideas,

perspectives and different ways of understanding his/her ongoing fieldwork and associated issues of educational practice, reform, and innovation. Five hours of fieldwork are required per week.

COURSES AT BRYN MAWR

200 CRITICAL ISSUES IN EDUCATION

Alice Lesnick

Designed to be the first course for students interested in pursuing one of the options offered through the Education Program, this course is also open to students exploring an interest in educational issues. The course examines major issues in education in the United States within the conceptual framework of educational transformation. Fieldwork in an area school required (eight visits, 1.5-2 hours per visit). Writing Intensive.

210 PERSPECTIVES ON SPECIAL EDUCATION

Debbie Flaks

The goal of this course is to introduce students to a range of topics, challenges, dilemmas, and strategies in understanding and educating all learners--those considered typical learners as well as those considered "special" learners. Students will learn more about: how students' learning profiles affect their learning in school from a functional perspective; how and why students' educational experience is affected by special education law; major issues in the field of special education; and a-typical learners, students with disabilities, and how to meet diverse student needs in a classroom. Two hours of fieldwork per week required.

225 EMPOWERING LEARNERS: HEALTH LITERACIES IN CONTEXT

Alice Lesnick

This is a topics course. Course content varies. Praxis course.

Current topic description: Students will explore the intersections of education and health and learn ways to move beyond "delivery model" and deficit thinking in a range of community-based field placements. Focus is on learning to facilitate and assess learners' growth within social contexts, challenging prescribed roles and identifying structural barriers and opportunities. Two hours of fieldwork for 10 weeks.

260 MULTICULTURAL EDUCATION

Jody Cohen

An investigation of education as a cultural event that engages issues of identity, difference, and power. The course explores a set of key tensions in the contested areas of multiculturalism and multicultural education: identity and difference; peace and conflict; dialogue and silence; and culture and the individual psyche. Students will apply theory and practice to global as well as specific, localized situations -- communities and schools that contend with significant challenges in terms of equity and places where educators, students, and parents are trying out ways of educating for diversity and social justice. Fieldwork of two to three hours per week.

266 SCHOOLS IN AMERICAN CITIES

Jody Cohen

This course examines issues, challenges, and possibilities of urban education in contemporary America. We use as critical lenses issues of race, class, and culture; urban learners, teachers, and school systems; and restructuring and reform. While we look at urban education nationally over several decades, we use Philadelphia as a focal "case" that students investigate through documents and school placements. Weekly fieldwork in a school required.

270 IDENTITY, ACCESS AND INNOVATION IN EDUCATION

Jody Cohen

This course explores formal policies that address dimensions of identity such as race, class, gender, language and dis/ability in education, and the informal ways that such policies play out in access to education and in knowledge construction and production. Praxis placements will provide students with opportunities to work in participatory ways in relation to these issues.

ENGINEERING

haverford.edu/engineering

While Haverford does not offer a formal engineering degree program, Many of our graduates have pursued successful and interesting careers in various engineering disciplines. Our partnerships with the University of Pennsylvania and Caltech offer robust—and unique—opportunities.

4+1 ENGINEERING PROGRAM WITH THE UNIVERSITY OF PENNSYLVANIA

Study for four years at Haverford, then one year at Penn, and receive a Bachelor's of Science from Haverford and a Master's in Engineering from Penn. Haverford is the first liberal arts college in the world to enter into such an agreement with an Ivy League engineering program.

During your four years at Haverford, you will take between zero and four undergraduate engineering courses (depending on your field of interest) through our course exchange agreements with Penn and Swarthmore. Typically, you will start taking these during your sophomore year, but it is essential to begin taking appropriate science and math courses at Haverford in the first semester of your freshman year. Please consult with the Haverford faculty contact for the Master's degree(s) that interest you most (see below).

You will formally apply to the 4+1 program any time between the end of your sophomore year and mid-summer after your junior year; a GPA of 3.0 in all courses and of 3.0 in science and math courses is required to apply. The admissions decision is based on your transcript and letters of recommendation from one or more Haverford faculty members. Once accepted, and after completing any prerequisite undergraduate engineering and science courses, you will take three graduate engineering courses at Penn while still enrolled at Haverford. (There is no additional financial charge for these courses.) During your four years at Haverford, you will also complete all graduation requirements, including the major. You graduate from Haverford at the normal time, along with your class.

The fifth year of the program is spent entirely at Penn. You will take seven additional graduate courses to complete the requirements for the Master's degree. There is no financial aid available from Penn for the fifth year of the program, though you are eligible for federal student loans.

Interested students should consult their advisor and the College's advisor for the 4+1 program (Prof. Walter Smith) as early as possible.

3/2 ENGINEERING PROGRAM WITH THE CALIFORNIA INSTITUTE OF TECHNOLOGY

Haverford College and the California Institute of Technology (CalTech) have a joint program under which a student who is interested in engineering may, in the first semester of his/her junior year, apply for transfer to an engineering program at CalTech. If accepted in the program, then at the end of five years (three at Haverford, two at CalTech), the student will be awarded a Bachelor of Arts or Bachelor of Science degree by Haverford and a Bachelor of Engineering Degree by CalTech. For each engineering discipline, there is a required set of courses to be taken at Haverford during the first three years of the program. Interested students should consult their advisor and the College's advisor for the 3/2 program (Prof. Walter Smith) about the proper course selection; this consultation should occur as early as possible. A cumulative grade point average of 3.5 is generally expected for this program.

MASTER'S DEGREE AFTER STUDY AT HAVERFORD

For many students interested in engineering, the best option is to spend the full four years at Haverford, taking two or three engineering courses through our course exchange agreements with Swarthmore and the University of Pennsylvania, then to apply for a Master's or Ph.D. program elsewhere.

The Master's takes 1.5-2 additional years to complete, while the Ph.D. takes 4-6 years. Students planning for this option should contact the Engineering Coordinator, Prof. Walter Smith

(wsmith@haverford.edu), as early as possible during their time at Haverford.

For more information about these programs, see the Degree Partnership Program listings on pages 34 and 35 of this publication.

ENGLISH
haverford.edu/english

The English department offers courses in the literary traditions of the English-speaking world.

The department aims to develop in its students:
- the ability to respond to texts thoughtfully and critically, and to articulate those responses in clear and fluent English.
- cultural and media literacy by introducing the range of literary traditions, broadly conceived, in the English language, and to familiarize them with major or defining instances of filmic, performative and visual texts.

Our courses provide opportunities to
- cultivate particular and deep understanding of specific periods, genres, authors, movements, and aesthetic or analytically significant issues.
- grow into discerning and careful readers responsive to formal, stylistic, and thematic elements of texts, and capable of understanding them as responses to the cultural contexts in which they emerge.
- develop an interdisciplinary approach to reading literature that crosses borders and makes interesting connections with material and methods in other disciplines and cultures.

This discipline prepares interested students for postgraduate work in English and other subjects as well as and careers in publishing, international business, government and policy, education, healthcare, and more. Our students have been recipients of many prestigious awards, including Fulbright Fellowships and a Rhodes Scholarship, and graduates have gone on to highly selective graduate schools and law schools. Many of our graduates have served in the Peace Corps or AmeriCorps and pursue careers in service and social justice.

English majors who plan to do post-graduate work should know that doctoral programs require a reading knowledge of one or two foreign languages.

CURRICULUM

In our curriculum we seek to maintain a working balance between:
- the traditional canon of British and American literature
- African American literature, Asian American literature, Postcolonial literature, South African literature, Irish literature, gender and sexuality studies
- courses inflected by particular theoretical foci, such as performance theory, queer theory, post-colonial theory, trauma theory, media and visual studies, and environmental studies.

Students may count courses in English taken at Bryn Mawr toward the Haverford English major. Students with interest and ability in creative writing may receive major credit for one semester of course-work in such writing. Students who submit a portfolio of work, no later than the end of first term of their junior year, may be admitted to the creative writing concentration (see below). Up-to-date information about the English department's activities and courses, including extended course descriptions and syllabi, is available at haverford.edu/eng.

MAJOR REQUIREMENTS

- ENGL 298 and 299, the two-semester Junior Seminar in English
- ENGL 399 a and b (Senior Conference)
- a minimum of seven additional courses, including courses across the spectrum of the department's offerings evincing the richness of an archive drawn from British, American and World Anglophone literature. At least two courses must be in literature written before 1800, and two courses must be at the 300-level.

Admission to the major requires completion of two courses at the 200 level by the end of the sophomore year; one of these must be an "introductory emphasis" course (selected from a list issued each semester). Students may take ENGL 150 in place of one "introductory emphasis" course.

The department gives major credit for a semester course in a foreign literature in the original language or for the Introduction to Comparative Literature (COML 200). The department awards no more than four major credits for work done beyond the Tri-College community, whether abroad or in the U.S.

Final evaluation of the major program centers on written work and oral examinations conducted in the context of the work for ENGL 399.

SENIOR CONFERENCE

For their senior projects, students work closely with a faculty consultant over the course of the year in the research and writing of a 25–30-page essay. Recent projects have ranged from "Reading the Construction and Performance of Gender Theory in Margaret Fuller's Woman in the 19th Century," "Charles Mee's redefinition of Authorship in Big Love," and "The Poetics of Cultural Unity in Chaucer's Canterbury Tales" to "Unearthing Memories in the Landscape: Seeing, Dreaming, and Digging in William Least Heat-Moon's PrairyErth." Students regularly submit their senior projects as the writing sample for graduate school applications, and several have had revised versions of their theses accepted by peer-reviewed journals.

CREATIVE WRITING CONCENTRATION

The Creative Writing Concentration entails:

- two courses in creative writing (only one of which is counted toward the major)
- writing a senior thesis composed of an original creative text (usually poetry, fiction or drama) and a rigorous critical introduction.

Students interested in completing the Concentration apply for acceptance in the spring semester of their junior year, by submitting a portfolio of creative work to the department chair. The departmental Concentration Committee reads each portfolio closely, and, if it feels the work suggests a readiness to generate a substantial literary project, will grant its author admission to the concentration.

REQUIREMENTS FOR HONORS

The department awards honors in English on the basis of performance in coursework within the Tri-College departments, the senior essay and the oral examination conducted at the end of the senior year. The department reserves high honors for distinguished achievement in all three of these areas.

FACULTY

Maud McInerney
Chair and Associate Professor

Kimberly Benston
Provost and Francis B. Gummere Professor of English

C. Stephen Finley
Professor

Laura McGrane
Associate Professor

Rajeswari Mohan
Associate Professor

Lindsay Reckson
Assistant Professor

Debora Sherman
Assistant Professor and Director of College Writing

Gustavus Stadler
Associate Professor

Christina Zwarg
Associate Professor

COURSES

150 INTRODUCTION TO LITERARY ANALYSIS

Laura McGrane, Ashly Bennett, Barbara Riebling, Jaclyn Pryor

Intended like other sections of the Writing Program to advance students' critical reading and analytical writing skills, this course is geared specifically towards introducing students to the discipline that studies the literary traditions of the English language. One of its aims is to explore the broad range of thematic interests inherent in these traditions, sharing as they do common roots in the history of our language and its influences. The powers and limits of language; ideas of character and community, and the relation between person and place; heroic endeavor and the mystery of evil; loss and renovation these are among the themes to be tracked through various strategies of literary representation and interpretation in a variety of genres (epic, narrative, and poetry) and modes (realism, allegory, and romance), and across a range of historical periods. Our goal is to develop the vocabulary, skills, and knowledge necessary to understand not only how we decide what literary texts mean, but also how literary texts generate and contemplate meaning. For 2012–13: A. Bennett, "Reading Madness"; A. Boone, "Fatal System Error: When Literary Investigations Go Awry"; B. Riebling, "The Poetics of Power"; D. Sherman, "Memory: The Use(s) of the Past"; M. Shafer, "The Haunting & the Horrific: Memory & Identity in Tales of Ghosts & Monsters."

200 LITERATURE AND POP CULTURE

Gustavus T. Stadler

A study of how writers, cultural critics, filmmakers, and musicians of the 20th-century U.S. left envisioned the relationship between art and politics in a mass-mediated culture, including attention to work by major theoreticians of the "popular." Pre-Requisite(s): Freshman Writing. Enrollment Limit: 50. Preference to Sophomores

205 STU SPAN AM NOVEL

Graciela Michelotti

Territories: Limits & Displacements in Latin American Contemporary Narrative
This course examines the topic of territory, with a concentration on territorial limits & displacements in Latin American narrative from the 1980's to the present. The goal of the course is to analyze novels, short stories, & films representing different countries and/or regions in the context of current configurations of Latin American territories.

215 REALISM, RACE, AND PHOTOGRAPHY

Lindsay V. Reckson

This course examines American literary realism and turn-of-the-century photography as complementary and sometimes competing practices, with a focus on their complex role in the imaging and imagining of racial identity. Fulfills ACNC concentration requirement. Pre-Requisite(s): Freshman Writing. Enrollment Limit: 25. Priority to students majoring in English or pursuing Africana studies concentration. 5 spaces reserved for non-majors.

220 THE ENGLISH EPIC

Maud B. McInerney

An exploration of the long narrative poems that shape the epic tradition in anglophone literature. Readings in classical epic and medieval epic, Milton, Romantic epics and the modern aftermath of epic.

257 BRITISH TOPOGRAPHIES 1790–1914

C. Stephen Finley

260 TRADITIONS IN NORTH AMERICAN LITERATURE

Christina Zwarg

The course conceptualizes American literature as a comparative literature whose traditions emerged from certain inalienable forces released as English became the dominant political language of North America. Theories of translation and language. Readings in Derrida, Shakespeare, Cabeza de Vaca, Behn, Rowlandson, Mather, Wheatly, Equiano, Franklin, Nat Turner, and Poe. The course concludes with a review of the drifting, searching, world aboard Melville's Pequod in *Moby-Dick*. This course satisfies pre-1800 requirement.

265 AFRICAN AMERICAN LITERATURE

Asali Solomon

This course is an exploration of African American satire, focusing on fiction. While continually developing and refining our definition of satire, we will situate satire by black artists in a broader American tradition.

290 HISTORY OF LITERARY THEORY

Deborah H. Roberts

In this course we investigate central texts in literary theory from the Greeks to early nineteenth-century Europe, with attention to key critical terms and concepts. Topics of discussion include the nature and origin of literary creation, socio-political ideas about the function of poetry and the poet, mimetic models of literature, the roles of art and nature, literature in relation to its audience, theories of genre, defenses of poetry, allegorical interpretation, the idea of the sublime, definitions of the imagination, poetic language, and the application of critical theory to particular texts. Readings include selections from: Plato, Aristotle, Horace, Longinus, Dante, Augustine, Sidney, Corneille, Dryden, Pope, De Stael, Johnson, Wollstonecraft, Wordsworth, Coleridge, Keats, and Shelley. Requirements include five short papers and a final exam. Not open to first-year students.

291 POETRY WORKSHOP

Thomas Devaney

Students write a poem a week, usually following an assignment that focuses on a particular strategy or form, from dramatic monologues to prose poems to sonnets. Students present their work for discussion and friendly critique by the workshop, and are encouraged to revise their work over the semester. There is some in-class writing exercises but most writing is done outside of class. Light reading assignments include modern and contemporary as well as older poetry. There is also a mini-session on the business of poetry.

292 POETRY WRITING

Thomas Devaney

This is an advanced creative writing workshop focusing on poetry. Student work is the focus along with analysis of selected readings. Students write poems each week (using a modeling method) and respond to the selected readings. Students are required to keep an online journal. A final portfolio of revised work is required.

293 FICTION WRITING

Asali Solomon

This course is an introduction to the techniques and strategies of fiction writing, with particular emphasis on the short story. Weekly reading assignments include both anthologized stories and student-generated ones.

294 FICTION WRITING

Asali Solomon

An Advanced Fiction Workshop focusing on basic elements of fiction writing such as character development, dialogue, plot and prose style, with special attention devoted to finding a form and distinctive voice, and to the process of revision and "finishing" a story.

298 JUNIOR SEMINAR I

Debora Sherman, Rajeswari Mohan

Junior seminar comprises of a two part sequence that, through class readings, discussion, and writing tutorials, engage students in a study of (1) a series of texts representing the range and diversity of the historical tradition in British and American literature, and (2) critical theory and practice as it has been influenced by hermeneutics, feminism, psychology, semiology, sociology, and the study of cultural representation, and as it reflects the methods of literary criticism.

299 JUNIOR SEMINAR II

Debora Sherman, Gustavus T. Stadler

Part II of the sequence focuses on narrative and its theorization and criticism. Readings include George Eliot's *Middlemarch*, stories by Henry James and Edgar Allen Poe, and James Joyce's *Ulysses*.

300 ADVANCED TOPICS IN PEACE, JUSTICE, AND HUMAN RIGHTS

Lindsay V. Reckson

This course examines the history of literary and cultural responses to capital punishment in the U.S., from the introduction of privately conducted state-sanctioned executions in the 1830s to the reinstatement of the death penalty in 1976. We explore the anti-death penalty movement through literature, photography, and film, with an emphasis on the relationship between politics and aesthetics; interwoven histories of race, gender, class, and criminality; and the connection between capital punishment, media, and other technologies of social power.

301B TOPICS IN MIDDLE ENGLISH

Maud B. McInerney

352 ROMANTICISM AND THEORY

C. Stephen Finley

This seminar begins by posing a series of fundamental questions about romantic poems,

beginning with Heidegger's essay of 1946, "What Are Poets For?" Readings in the course are drawn from five principal romantic careers: Blake, Wordsworth, Mary and Percy Shelley, and Keats.

361 TOPICS IN AFRICAN AMERICAN LITERATURE
Asali Solomon

365B TOPICS IN AMERICAN LITERATURE
Lindsay V. Reckson
This course examines fiction, poetry, and criticism by a series of 19th-century American writers who have positioned the encounter between reader and text as an act or event with unpredictable effects. A central focus is these texts' notion of pedagogy: framing our reading through contemporary theory, we ask how literature teaches, what it teaches, how you come to believe that you've been taught something, or that you've not been taught something.

377 PROBLEMS IN POSTCOLONIAL LITERATURE: VIOLENCE, TERROR, AND IDENTITY
Rajeswari Mohan
The decisive role that Fanon attributes to violence in the colonial context has had an inexorable afterlife in postcolonial societies. Course texts explore this dialectic of violation and violence, but they present it as a mutating, complex phenomenon, drawing its energies from multiple histories and traditions that are not always centered on the colonial experience.

381 TEXTUAL POLITICS
Gustavus T. Stadler
This course addresses theories relating language to culture, history, and power. Theorists studied include Marx, Althusser, Macherey, Volosinov, Williams, Barthes, Derrida, Kristeva, Cixous, and Irigaray.

389 PROBLEMS IN POETICS: THE INTERPRETATION OF LYRIC
Barbara Riebling
An examination of theoretical issues and presentational strategies in various verse structures from Ovid to Bishop. Close readings of strategically grouped texts explore the interplay of convention and innovation with close attention to rhetorics of desire, external and internal form, and recurrent lyric figures, tropes, and topoi.

399 SENIOR CONFERENCE
Maud B. McInerney
Students work closely with a faculty consultant over the course of their senior year in the research and writing of a 25–30 page essay or a piece of creative writing accompanied by a critical preface (for the creative writing concentration). The course culminates in an hour-long oral examination that covers the thesis and coursework done for the major.

ENVIRONMENTAL STUDIES (TRI-CO)

haverford.edu/environmentalstudies

Haverford, Bryn Mawr, and Swarthmore offer an interdisciplinary Tri-College (Tri-Co) Environmental Studies (ES) minor, involving departments and faculty on all three campuses from the natural sciences, engineering, math, the humanities, and the arts. The Tri-Co ES minor (haverford.edu/environmentalstudies) brings together students and faculty to explore interactions among earth systems, human societies, and local and global environments.

Students may complete an ES minor in conjunction with any major at Haverford, Bryn Mawr or Swarthmore, pending approval of the student's coursework plan by the home department and the home-campus ES director.

The Tri-Co ES minor aims to cultivate in students the capacity to identify and confront key environmental issues through a blend of multiple disciplines, encompassing historical, cultural, economic, political, scientific, and ethical modes of inquiry. Acknowledging the reciprocal dimensions of materiality and culture in the historical formations of environments, this program is broadly framed by a series of interlocking dialogues: between the "natural" and the "built," the local and the global, and the human and the nonhuman.

To declare the minor, students should contact the Environmental Studies director at their home campus; at Haverford this is Professor Helen White (hwhite@haverford.edu) at (610) 795-6402. For additional information about the minor, including an updated list of affiliated faculty and approved electives, visit us online.

CURRICULUM

ENVIRONMENTAL STUDIES MINOR REQUIREMENTS

The Tri-Co ES minor consists of six courses, including an introductory course and capstone course. Students may complete the courses at any of the three campuses (or any combination thereof). The six required courses are:

1. A required introductory course to be taken prior to the senior year. This may be ENVS 101 at Haverford or Bryn Mawr or the parallel course at Swarthmore (ENVS 001). Any one of these courses satisfies the requirement, and students may take no more than one such course for credit toward the minor.

2. Four elective course credits from approved lists of core and cognate courses, including two credits in each of the following categories (A and B). Students may use no more than one cognate course credit for each category. (See the ES website [haverford.edu/environmentalstudies] for course lists and more about core and cognate courses.) For Haverford students, no more than one of these four course credits may be in the student's major.

A) Environmental Science, Engineering, and Math: courses that build understanding and knowledge of scientific methods and theories, and explore how these can be applied in identifying and addressing environmental challenges. At least one of the courses in this category must have a laboratory component.

B) Environmental Social Sciences, Humanities, and Arts: courses that build understanding and knowledge of social and political structures as well as ethical considerations, and how these inform our individual and collective responses to environmental challenges.

3. A senior seminar (case-based), with culminating work that reflects tangible research design and inquiry, but might materialize in any number of project forms. Haverford and Bryn Mawr's ENVS 397 (Senior Seminar in Environmental Studies) and Swarthmore's ENVS 091 (Environmental Studies Capstone Seminar) satisfy the requirement.

Haverford students interested in the Environmental Studies minor should plan their course schedule with the Haverford Director of Environmental Studies in consultation with their major advisor. In choosing electives, we encourage students to reach beyond their major, and to include mostly intermediate or advanced courses.

FACULTY

AFFILIATED FACULTY AT HAVERFORD:

Helen White
Chemistry, Environmental Studies Director

Kim Benston
English

Craig Borowiak
Political Science

Kaye Edwards
Interdisciplinary Programs

Steve Finley
English

Andrew Friedman
History

Darin Hayton
History

Karl Johnson
Biology

Rob Scarrow
Chemistry

Steven Smith
Economics

Jonathan Wilson
Biology

AFFILIATED FACULTY AT BRYN MAWR:

Victor Donnay
Mathematics, Environmental Studies Director

Don Barber
Geology, Alderfer Chair in Environmental Studies

Peter Briggs
English

Joshua Caplan
Biology, Bucher-Jackson Fellow

Jonas Goldsmith
Chemistry

Karen Greif
Biology

Carol Hager
Political Science

Thomas Mozdzer
Biology

Michael Rock
Economics

David Ross
Economics

Bethany Schneider
English

Ellen Stroud
Growth and Structure of Cities, Harris Chair in Environmental Studies (on leave semesters I and II)

Nathan Wright
Sociology

AFFILIATED FACULTY AT SWARTHMORE:

Elizabeth Bolton
English Literature, Environmental Studies DirectorTimothy Burke, History

Peter Collings
Physics and Astronomy

Giovanna DiChiro
Political Science

Erich Carr Everbach
Engineering

Giovanna Di Chiro, Political Science

Eric Jensen
Physics and Astronomy

Jose-Luis Machado
Biology

Arthur McGarity
Engineering

Rachel Merz
Biology

Carol Nackenoff
Political Science

Jennifer Peck
Economics

Christine Schuetze
Sociology and Anthropology

Mark Wallace
Religion and Environmental Studies

COURSES

101 CASE STUDIES IN ENVIRONMENTAL ISSUES

Joshua Moses

The course offers a cross-disciplinary introduction to environmental studies. Tracing an arc from historical analysis to practical engagement, distinctive approaches to key categories of environmental inquiry are presented: political ecology, earth science, energy, economics, public health, ecological design, sustainability, policy, and environmental ethics. Basic concepts, such as thermodynamics, biodiversity, cost-benefit analysis, scale, modernization, enclosure, the commons, and situational ethics, are variously defined and employed within specific explorations of environmental challenges in the modern world.

150 INTRODUCTION TO OCEANOGRAPHY

Helen K. White

The oceans are one of the principal agents controlling global change, and are linked to nearly all of the biological, chemical, geological, and ecological systems on our planet's surface. In this course we will examine these systems and the impact of humans upon them. Enrollment Limit: 50. Preference given to Environmental Studies minors, 10 seats reserved for freshmen.

201 GEOGRAPHIC INFORMATION SYSTEMS

Megan Heckert

This course is designed to introduce the foundations of Geographic Information Systems with emphasis on applications for social and environmental analysis. It deals with basic principles of GIS and its use in spatial analysis and information management. Ultimately, students design and carry out research projects on topics of their own choosing.

203 IMAGINING THE ARCTIC

Joshua Moses

Circumpolar regions have been imagined as vast, remote, wild and pristine regions of the planet. More recently, with images of polar bears sinking on sea ice, the Arctic has been depicted as vulnerable, imperiled by climate change and environmental destruction. Focusing on ethnography, this course examines how scholars have engaged critical issues facing the contemporary Arctic. Themes include local/global interactions, indigenous politics, resource extraction, human/animal relations, self-governance and cultural politics. Readings include, Franz Boas, Jean Briggs, Eleanor Leacock, George Wenzel, Hugh Brody, Julie Cruikshank , Kirk Dombrowski, and Lisa Stevenson.

234 ENVIRONMENTAL ECONOMICS

This course explores how economists approach and consider the environment. It is primarily the study of externalities. We will understand the ramifications and solutions of missing market-placing values upon elements not often traded.

278 THE EARTH: ETHICS, POLITICS, AND ECONOMICS

Thomas J. Donahue

How should we deal with clashes among environmental values, economic growth, and what people want? Examines the clashing theories and interpretations of facts that underlie current environmental debates. Focus on climate change and inter-relations among ethical, political, and economic concerns.

348 WALTER BENJAMIN ON LANCASTER AVENUE

Andrew Friedman

This course mixes a readings seminar in the work of the German-Jewish philosopher and critical theorist Walter Benjamin with an inquiry into the history of American modernity, using Benjamin of the Philadelphia and Lancaster, PA. It culminates in a collective project of digital scholarship, based in semester-long student-faculty collaboration in archival research on Lancaster Avenue. Pre-requisite(s): At least one 200-level course or permission of instructor.

397 SENIOR SEMINAR IN ENVIRONMENTAL STUDIES

Helen K. White

This capstone environmental studies course is designed to allow environmental studies seniors to actively engage in environmental problem solving by bringing the perspectives and skills gained from their majors and applying them to collaborative interdisciplinary projects.

FILM STUDIES AT BRYN MAWR COLLEGE

brynmawr.edu/filmstudies

Film Studies is an interdisciplinary program of inquiry bringing a range of analytical methods to bear upon films, film audiences, and the social and industrial contexts of film and media production, distribution, and exhibition. The courses that comprise the minor in film studies reflect the diversity of approaches in the academic study of cinema. The minor is anchored by core courses in formal analysis, history and theory. Elective courses in particular film styles, directors, national cinemas, genres, areas of theory and criticism, video production, and issues in film and media culture add both breadth and depth to this program of study.

CURRICULUM

Film Studies is a Bryn Mawr College minor. Students must take a majority of courses on the Bryn Mawr campus; however, minors are encouraged to consider courses offered in the Tri-College consortium and at the University of Pennsylvania. Students should work with the director of the Film Studies Program to develop a minor work plan when declaring the minor.

MINOR REQUIREMENTS

In consultation with the program director, students design a program of study that includes a range of film genres, styles, national cinemas, eras, and disciplinary and methodological approaches. Students are strongly encouraged to take at least one course addressing topics in global or non-western cinema. The minor consists of a total of six courses and must include the following:

- One introductory course in the formal analysis of film
- One course in film history or an area of film history
- One course in film theory or an area of film theory
- Three electives.

At least one of the six courses must be at the 300 level. Courses that fall into two or more of the above categories may fulfill the requirement of the student's choosing, but may not fulfill more than one requirement simultaneously. Students should consult with their advisers to determine which courses, if any, may count simultaneously for multiple credentials. Final approval is at the discretion of the program director.

STEERING COMMITTEE

Timothy Harte, Chair and Associate Professor of Russian

Homay King, Associate Professor of History of Art and Director of Film Studies and the Center for Visual Culture

Hoang Tan Nguyen, Associate Professor of English and Film Studies (on leave 2014–2015)

Michael Tratner, Mary E. Garrett Alumnae Professor of English

Sharon Ullman, Professor of History and Director of Gender and Sexuality Studies

AFFILIATED FACULTY

Shiamin Kwa,
Assistant Professor of East Asian Studies on the Jye Chu Lectureship in Chinese Studies

Steven Z. Levine,
Professor of History of Art and the Leslie Clark Professor in the Humanities (on leave 2014–2015)

Roberta Ricci,
Chair and Associate Professor of Italian (on leave 2014–2015)

H. Rosi Song,
Chair and Associate Professor of Spanish

COURSES

ARTW B266 SCREENWRITING

N. Doyne

An introduction to screenwriting. Issues basic to the art of storytelling in film will be addressed and analyzed: character, dramatic structure, theme, setting, image, and sound. The course focuses on the film adaptation; readings include novels, screenplays, and short stories. Films adapted from the readings will be screened. In the course of the semester, students will be expected to outline and complete the first act of an adapted screenplay of their own.

COML B110 CRITICAL APPROACHES TO VISUAL REPRESENTATION: IDENTIFICATION IN THE CINEMA

H. King

An introduction to the analysis of film through particular attention to the role of the spectator. Why do moving images compel our fascination? How exactly do film spectators relate to the people, objects, and places that appear on the screen? Wherein lies the power of images to move, attract, repel, persuade, or transform its viewers? In this course, students will be introduced to film theory through the rich and complex topic of identification. We will explore how points of view are framed in cinema, and how those viewing positions differ from those of still photography, advertising, video games, and other forms of media. Students will be encouraged to consider the role the cinematic medium plays in influencing our experience of a film: how it is not simply a film's content, but the very form of representation that creates interactions between the spectator and the images on the screen. Film screenings include Psycho, Being John Malkovich, and others. Course is geared to freshman and those with no prior film instruction. Fulfills History of Art major 100-level course requirement, Film Studies minor Introductory course or Theory course requirement. Syllabus is subject to change at instructor's discretion. Crosslisted as HART-B110.

COML B214 ITALY TODAY: NEW VOICES, NEW WRITERS, NEW LITERATURE

This course, taught in English, will focus primarily on the works of the so-called "migrant writers" who, having adopted the Italian language, have become a significant part of the new voice of Italy. In addition to the aesthetic appreciation of these works, this course will also take into consideration the social, cultural, and political factors surrounding them. The course will focus on works by writers who are now integral to Italian canon – among them: Cristina Ali-Farah, Igiaba Scego, Ghermandi Gabriella, Amara Lakhous. As part of the course, movies concerned with various aspects of Italian Migrant literature will be screened and analyzed. Crosslisted as ITAL-B212. (Not Offered 2014-2015)

COML B238 TOPICS: THE HISTORY OF CINEMA 1895 TO 1945

This is a topics course. Course content varies. Crosslisted as ENGL-B238; RUSS-B238; HART-B238. (Not Offered 2014-2015)

COML B306 FILM THEORY

H. King

An introduction to major developments in film theory and criticism. Topics covered include: the specificity of film form; cinematic realism; the cinematic "author"; the politics and ideology of cinema; the relation between cinema and language; spectatorship, identification, and subjectivity; archival and historical problems in film studies; the relation between film studies and other disciplines of aesthetic and social criticism. Each week of the syllabus pairs critical writing(s) on a central principle of film analysis with a cinematic example. Class will be divided between discussion of critical texts and attempts to apply them to a primary cinematic text. Crosslisted as HART-B306; ENGL-B306.

EAST B212 INTRODUCTION TO CHINESE LITERATURE

S. Kwa, M. Wang

This is a topics course. Topics may vary.
Spring 2015 topic: This class examines the material world of the Qing dynasty novel Hongloumeng, or Dream of the Red Chamber. Using literary theory and material culture studies, we will situate the novel in relation to ideas of circulation in late imperial China and contemporaneous cultures in other world regions. Topics include global trade, exchange, technology, etc.

EAST B240 TOPICS IN CHINESE FILM

S. Kwa

This is a topics course. Course content varies. Prerequisite: At least one course approved as an EAST core course or permission of instructor.

Fall 2014 topic: Zhang Yimou and Chen Kaige—This semester we will be examining films and related literature of two directors from the Peoples' Republic of China. We will consider representative works that extend from the 1980s to the present day.

EAST B315 Spirits, Saints, Snakes, Swords: Women in East Asian Literature and Film
This interdisciplinary course focuses on a critical survey of literary and visual texts by and about Chinese women. We will begin by focusing on the cultural norms that defined women's lives beginning in early China, and consider how those tropes are reflected and rejected over time and geographical borders (in Japan, Hong Kong and the United States). No prior knowledge of Chinese culture or language necessary. (Not Offered 2014-2015)

EDUC B320 TOPICS IN GERMAN LITERATURE AND CULTURE

This is a topics course. Course content varies. Previous topics include: Romantic Literary Theory and Literary Modernity; Configurations of Femininity in German Literature; Nietzsche and Modern Cultural Criticism; Contemporary German Fiction; No Child Left Behind: Education in German Literature and Culture, German Literary Culture in Exile (1933-1945). Crosslisted as GERM-B320. (Not Offered 2014-2015)

ENGL B205 INTRODUCTION TO FILM

M. Tratner
This course is intended to provide students with the tools of critical film analysis. Through readings of images and sounds, sections of films and entire narratives, students will cultivate the habits of critical viewing and establish a foundation for focused work in film studies. The course introduces formal and technical units of cinematic meaning and categories of genre and history that add up to the experiences and meanings we call cinema. Although much of the course material will focus on the Hollywood style of film, examples will be drawn from the history of cinema. Attendance at weekly screenings is mandatory. Crosslisted as HART-B205.

ENGL B238 TOPICS: THE HISTORY OF CINEMA 1895 TO 1945

This is a topics course. Course content varies. Crosslisted as RUSS-B238; HART-B238; COML-B238. (Not Offered 2014-2015)

ENGL B261 TOPICS: FILM AND THE GERMAN LITERARY IMAGINATION

This is a topics course. Course content varies. Crosslisted GERM-B262. (Not Offered 2014-2015)

ENGL B299 HISTORY OF NARRATIVE CINEMA, 1945 TO THE PRESENT

H. King
This course surveys the history of narrative film from 1945 through contemporary cinema. We will analyze a chronological series of styles and national cinemas, including Classical Hollywood, Italian Neorealism, the French New Wave, and other post-war movements and genres. Viewings of canonical films will be supplemented by more recent examples of global cinema. While historical in approach, this course emphasizes the theory and criticism of the sound film, and we will consider various methodological approaches to the aesthetic, socio-political, and psychological dimensions of cinema. Readings will provide historical context, and will introduce students to key concepts in film studies such as realism, formalism, spectatorship, the auteur theory, and genre studies. Fulfills the history requirement or the introductory course requirement for the Film Studies minor. Crosslisted as HART-B299.

ENGL B306 FILM THEORY

H. King
This course covers a selection of key texts in film theory. Our primary method of inquiry will be close analysis of primary theoretical texts. Topics of discussion may include: the ontology of the photographic image, the ethics of cinema, cinematic space and temporality, and film theory's relationship to other forms of visual media. Film screenings will serve to illustrate and complicate theoretical concepts. Fulfills the theory requirement for Film Studies minors. Crosslisted as HART-B306; COML-B306

ENGL B323 MOVIES, FASCISM, AND COMMUNISM

Movies and mass politics emerged together, altering entertainment and government in strangely similar ways. Fascism and communism claimed an inherent relation to the masses and hence to movies; Hollywood rejected such claims. We will examine films alluding to fascism or communism, to understand them as commenting on political debates and on the mass experience of movie going. (Not Offered 2014-2015)

ENGL B324 TOPICS IN SHAKESPEARE: SHAKESPEARE ON FILM

Films and play texts vary from year to year. The course assumes significant prior experience of Shakespearean drama and/or Renaissance drama. (Not Offered 2014-2015)

ENGL B334 TOPICS IN FILM STUDIES

This is a topics course. Content varies. Crosslisted as HART-B334. (Not Offered 2014-2015)

ENGL B336 TOPICS IN FILM

This course examines experimental film and video from the 1930s to present. It will concentrate on the use of found footage: the reworking of existing imagery in order to generate new aesthetic frameworks and cultural meanings. Key issues to be explored include copyright, piracy, archive, activism, affect, aesthetics, interactivity and fandom. Crosslisted as HART-B33.6 (Not Offered 2014-2015)

ENGL B353 QUEER DIASPORAS: EMPIRE, DESIRE, AND THE POLITICS OF PLACEMENT

Looking at fiction and film from the U.S. and abroad through the lenses of sexuality studies and queer theory, we will explore the ways that both current and past configurations of sexual, racial, and cultural personhood have inflected, infringed upon, and opened up spaces of local/global citizenship and belonging. Prerequisites: An introductory course in film, or GNST B290, or ENGL B250. (Not Offered 2014-2015)

GERM B262 TOPICS: FILM AND THE GERMAN LITERARY IMAGINATION

This is a topics course. Course content varies. Crosslisted as ENGL-B261. (Not Offered 2014-2015)

GERM B320 TOPICS IN GERMAN LITERATURE AND CULTURE

This is a topics course. Course content varies. Previous topics include: Romantic Literary Theory and Literary Modernity; Configurations of Femininity in German Literature; Nietzsche and Modern Cultural Criticism; Contemporary German Fiction; No Child Left Behind: Education in German Literature and Culture, German Literary Culture in Exile (1933-1945). Crosslisted as EDUC-B320. (Not Offered 2014-2015)

GNST B255 VIDEO PRODUCTION

D. Romberg

This course explores aesthetic strategies utilized by low-budget film and video makers as each student works throughout the semester to complete a 7–15 minute film or video project. Course requirements include weekly screenings, reading assignments, and class screenings of rushes and roughcuts of student projects. Prerequisites: Some prior film course experience necessary, instructor discretion.

GNST B302 TOPICS IN VIDEO PRODUCTION

D. Romberg

This is a topics course. Course content varies. Prerequisite: GNST B255 or ENGL/HART B205 or ICPR H243 or ICPR H343 or ICPR H278 or ANTH H207 or an equivalent Video Production course, such as Documentary Production or an equivalent critical course in Film or Media Studies.

HART B110 CRITICAL APPROACHES TO VISUAL REPRESENTATION: IDENTIFICATION IN THE CINEMA

H. King

An introduction to the analysis of film through particular attention to the role of the spectator. Why do moving images compel our fascination? How exactly do film spectators relate to the people, objects, and places that appear on the screen? Wherein lies the power of images to move, attract, repel, persuade, or transform its viewers? In this course, students will be introduced to film theory through the rich and complex topic of identification. We will explore how points of view are framed in cinema, and how those viewing positions differ from those of still photography, advertising, video games, and other forms of media. Students will be encouraged to consider the role the cinematic medium plays in influencing our experience of a film: how it is not simply a film's content, but the very form of representation that creates interactions between the spectator and the images on the screen. Film screenings include Psycho, Being John Malkovich, and others. Course is geared to freshman and those with no prior film instruction. Fulfills History of Art major 100-level course requirement, Film Studies minor Introductory course or Theory course requirement. Syllabus is subject to change at instructor's discretion. Crosslisted as COML-B110.

HART B205 INTRODUCTION TO FILM

M. Tratner

This course is intended to provide students with the tools of critical film analysis. Through readings of images and sounds, sections of films and entire narratives, students will cultivate the habits of critical viewing and establish a foundation for focused work in film studies. The course introduces formal and technical units of cinematic meaning and categories of genre and history that add up to the experiences and meanings we call cinema. Although much of the course material will focus on the Hollywood style of film, examples will be drawn from the history of cinema. Attendance at weekly screenings is mandatory. Crosslisted as ENGL-B205.

HART B215 RUSSIAN AVANT-GARDE ART, LITERATURE AND FILM

This course focuses on Russian avant-garde painting, literature and cinema at the start of the 20th century. Moving from Imperial Russian art to Stalinist aesthetics, we explore the rise of non-objective painting (Malevich, Kandinsky, etc.), ground-breaking literature (Bely, Mayakovsky), and revolutionary cinema (Vertov, Eisenstein). No knowledge of Russian required. Crosslisted as RUSS-B215. (Not Offered 2014-2015)

HART B238 TOPICS: THE HISTORY OF CINEMA 1895 TO 1945

This is a topics course. Course content varies. Crosslisted as ENGL-B238; RUSS-B238; COML-B238. (Not Offered 2014-2015)

HART B299 HISTORY OF NARRATIVE CINEMA, 1945 TO THE PRESENT

H. King

This course surveys the history of narrative film from 1945 through contemporary cinema. We will analyze a chronological series of styles and national cinemas, including Classical Hollywood, Italian Neorealism, the French New Wave, and other post-war movements and genres. Viewings of canonical films will be supplemented by more recent examples of global cinema. While historical in approach, this course emphasizes the theory and criticism of the sound film, and we will consider various methodological approaches to the aesthetic, socio-political, and psychological dimensions of cinema. Readings will provide historical context, and will introduce students to key concepts in film studies such as realism, formalism, spectatorship, the auteur theory, and genre studies. Fulfills the history requirement or the introductory course requirement for the Film Studies minor. Crosslisted as ENGL-B299.

HART B306 FILM THEORY

H. King

An introduction to major developments in film theory and criticism. Topics covered include: the specificity of film form; cinematic realism; the cinematic "author"; the politics and ideology of cinema; the relation between cinema and language; spectatorship, identification, and subjectivity; archival and historical problems in film studies; the relation between film studies and other disciplines of aesthetic and social criticism. Each week of the syllabus pairs critical writing(s) on a central principle of film analysis with a cinematic example. Class will be divided between discussion of critical texts and attempts to apply them to a primary cinematic text.
Crosslisted as ENGL-B306; COML-B306.

HART B334 TOPICS IN FILM STUDIES

This is a topics course. Course content varies. Crosslisted as ENGL-B334. (Not Offered 2014-2015)

HART B336 TOPICS IN FILM

This course examines experimental film and video from the 1930s to present. It will concentrate on the use of found footage: the reworking of existing imagery in order to generate new aesthetic frameworks and cultural meanings. Key issues to be explored include copyright, piracy, archive, activism, affect, aesthetics, interactivity and fandom. Crosslisted as ENGL-B336. (Not Offered 2014-2015)

HIST B284 MOVIES AND AMERICA

S. Ullman

Movies are one of the most important means by which Americans come to know – or think they know—their own history. This class examines the complex cultural relationship between film and American historical self \-fashioning.

ITAL B212 ITALY TODAY: NEW VOICES, NEW WRITERS, NEW LITERATURE

This course, taught in English, will focus primarily on the works of the so-called "migrant writers" who, having adopted the Italian language, have become a significant part of the new voice of Italy. In addition to the aesthetic appreciation of these works, this course will also take into consideration the social, cultural, and political

factors surrounding them. The course will focus on works by writers who are now integral to Italian canon – among them: Cristina Ali-Farah, Igiaba Scego, Ghermandi Gabriella, and Amara Lakhous. As part of the course, movies concerned with various aspects of Italian Migrant literature will be screened and analyzed. Crosslisted as COML-B214 (Not Offered 2014-2015)

ITAL B225 ITALIAN CINEMA AND LITERARY ADAPTATION

The course will discuss how cinema conditions literary imagination and how literature leaves its imprint on cinema. We will "read" films as "literary images" and "see" novels as "visual stories." The reading of Italian literary sources will be followed by evaluation of the corresponding films by well-known directors, including female directors. We will study, through close analysis, such issues as Fascism, nationhood, gender, sexuality, politics, regionalism, death, and family within the European context of WWII and post-war Italy. (Not Offered 2014-2015)

ITAL B229 FOOD IN ITALIAN LITERATURE, CULTURE, AND CINEMA

N. Rusin

Taught in English. A profile of Italian literature/culture/cinema obtained through an analysis of gastronomic documents, films, literary texts, and magazines. We will also include a discussion of the Slow Food Revolution, a movement initiated in Italy in 1980 and now with a world-wide following, and its social, economic, ecological, aesthetic, and cultural impact to counteract fast food and to promote local food traditions. Course taught in English. One additional hour for students who want Italian credit. Prerequisite: ITAL 102.

ITAL B255 UOMINI D'ONORE IN SICILIA: ITALIAN MAFIA IN LITERATURE AND CINEMA

This course aims to explore representations of Mafia figures in Italian literature and cinema, with reference also to Italian-American films, starting from the 'classical' example of Sicily. The course will introduce students to both Italian Studies from an interdisciplinary prospective and also to narrative fiction, using Italian literature written by 19th, 20th, and 21st Italian Sicilian authors. Course is taught in Italian. Prerequisite: ITAL B102 or permission of the instructor. (Not Offered 2014-2015)

ITAL B299 GRIEF, SEXUALITY, IDENTITY: EMERGING ADULTHOOD

Adolescence is an important time of personality development as a result of changes in the self-concept and the formation of a new moral system of values. Emphasis will be placed on issues confronting the role of the family and peer relationships, prostitution, drugs, youth criminality/gangsters/violence, cultural diversity, pregnancy, gender identity, mental/moral/religious development, emotional growth, alcoholism, homosexuality, sexual behavior. Prerequisite: ITAL B102. (Not Offered 2014-2015)

RUSS B215 RUSSIAN AVANT-GARDE ART, LITERATURE AND FILM

This course focuses on Russian avant-garde painting, literature and cinema at the start of the 20th century. Moving from Imperial Russian art to Stalinist aesthetics, we explore the rise of non-objective painting (Malevich, Kandinsky, etc.), ground-breaking literature (Bely, Mayakovsky), and revolutionary cinema (Vertov, Eisenstein). No knowledge of Russian required. Crosslisted as HART-B215. (Not Offered 2014-2015)

RUSS B238 TOPICS: THE HISTORY OF CINEMA 1895 TO 1945

This is a topics course. Course content varies. Crosslisted as ENGL-B238; HART-B238; COML-B238. (Not Offered 2014-2015)

RUSS B258 SOVIET AND EASTERN EUROPEAN CINEMA OF THE 1960S

T. Harte

This course examines 1960s Soviet and Eastern European "New Wave" cinema, which won worldwide acclaim through its treatment of war, gender, and aesthetics. Films from Czechoslovakia, Hungary, Poland, Russia, and Yugoslavia will be viewed and analyzed, accompanied by readings on film history and theory. All films shown with subtitles; no knowledge of Russian or previous study of film required.

FINE ARTS
haverford.edu/finearts

In the Fine Arts department, the focus is on the individual. Studio classes are small, and students from beginners to majors receive individual instruction.

Every student is encouraged to develop the physical and critical skills necessary to create art. The philosophy of the department is that observational skills are the cornerstone of all visual art disciplines. Cognition and processing information are key skills for any discipline—in the humanities or the sciences—and for this reason art at Haverford is specifically geared towards enhancing visual perception. Such finely tuned skills can benefit anyone professionally and personally.

The fine arts courses offered by the department are structured to accomplish the following:
- For students not majoring in fine arts: to develop a visual perception of form and to present knowledge and understanding of it in works of art.
- For students intending to major in fine arts: beyond the foregoing, to promote thinking in visual terms and to foster the skills needed to give expression to these in a coherent body of art works.

About 20 percent of Haverford students take fine arts courses while enrolled in the College. The students who major in fine arts and wish to continue their education are usually accepted at the professional graduate art school of their choice. Our alumni are distinguished professionals, active in the visual creative arts and allied fields.

CURRICULUM

The 100-level "Introductory or Foundation" courses consist of half-semester courses. A student may choose three or four out of five mediums—drawing, painting, sculpture, photography, and printmaking—for credit. Although one half-semester is not sufficient for a beginning student to master a given medium, it offers ample time for acquiring a medium's basic skills. In each discipline, the student learns to see and to coordinate his or her increasing skills of interpretation and expression to create individual art works.

The 200-level courses are "Materials and Techniques" courses. Having gained a solid basis from the foundation courses, the student chooses a medium to pursue in depth for a semester. At this level, we encourage the student to explore the various materials and their uses to create a refined and distinctive body of work. In the 300-level "Experimental Studio" courses, the student uses the acquired knowledge of materials and techniques to further express and broaden his or her artistic vision and ideas.

We encourage students to spend time on their own work outside of class in the fine arts building. Adjacent faculty studios encourage this informal contact, which is invaluable in learning the discipline of creating art. This type of contact and mentoring is an important aspect of a student's education in our department.

MAJOR REQUIREMENTS

Senior candidates for the major in Fine Arts complete the requirement for the major by presenting a one-person show consisting of a coherent body of work, expressive of his or her artistic vision and insights.

Fine arts majors are required to concentrate in either painting, drawing, sculpture, photography, or printmaking:
- four 100-level foundation courses in each discipline
- two different 200-level courses outside the area of concentration
- two 200-level courses and one 300-level course within that area
- three art history courses at Bryn Mawr or equivalent
- Senior Departmental Studies 499.

For majors intending to do graduate work, we strongly recommend that they take an additional 300-level studio course within their area of

concentration and an additional art history course at Bryn Mawr.

MINOR REQUIREMENTS

- four of 100-level foundation courses in painting (or drawing), sculpture, printmaking, and photography;
- two 200-level courses and one 300-level course within the chosen area of study; and
- one art history/theory/criticism, or visual culture courses.

FACILITIES

The Marshall Fine Arts Center is a well-proportioned structure built in 1987 with large white walls and studio spaces provided with natural light from skylights. The building is equipped to provide efficient work space for painting, drawing and photography. The black-and-white and color photography darkrooms are outfitted with the latest enlargers and a 26-inch roller processor for printing color. A digital photography facility is located in Magill Library. The foundry building has sculpture classrooms and workshops for woodworking, clay and casting. The print-making studio, in the Locker Building adjacent to Ryan Gym, is equipped with digital print-making, etching, lithography, silkscreen, relief and photo-graphic processes in a darkroom.

FACULTY

Ying Li
Chair and Professor of Fine Arts

William E. Williams
Audrey A. and John L. Dusseau Professor in the Humanities and Curator of Photography

Markus Baenziger
Associate Professor

Hee Sook Kim
Associate Professor

COURSES

101 ARTS FOUNDATION: DRAWING (2-D)
Markus Baenziger/Jonathan Goodrich/Ying Li
A seven-week introductory course for students with little or no experience in drawing. Students first learn how to see with a painter's eye and then study composition, perspective, proportion, light, form, picture plane, and other fundamentals. We work from live models, still life, landscape, imagination, and masterwork.

103 ARTS FOUNDATION: PHOTOGRAPHY
William Williams

104E ARTS FOUNDATION: SCULPTURE
Markus Baenziger
This seven-week, half-semester course provides an introduction to three-dimensional concepts and techniques. We address skills associated with organizing and constructing three-dimensional form through a series of projects within a contemporary context. The first projects focus on basic three-dimensional concepts, while later projects allow for greater individual self-expression and exploration. In-class demonstrations include various fabrication skills such as construction, modeling, basic mold making, and casting. The class covers all fabrication techniques in detail, and no prior experience is required to successfully complete this course. Important: ARTS H106(Foundation Drawing 3D) is the first half of each semester and ARTS H104 (Foundation Sculpture) is the second half of each semester. Students interested in taking Foundation Sculpture must attend the first day of ARTSH106 Foundation Drawing to enter the lottery for Foundation Sculpture. Students who are unable to attend the first class of the semester should email the professor.

107E ARTS FOUNDATION: PAINTING
Jonathan Goodrich/Ying Li
A seven-week introductory course for students with little or no experience in painting. Class first introduces students to the handling of basic tools, materials and techniques. We study the color theory such as interaction of color, value and color, warms and cools, complementary colors, optical mixture, texture, and surface quality. We work from live model, still life, landscape, imagination, and masterwork.

108 ARTS FOUNDATION: PHOTOGRAPHY
William Williams

120E FOUNDATION PRINTMAKING: SILKSCREEN
Hee Sook Kim
A seven-week course covering various techniques and approaches to silkscreen, including painterly monoprint, stencils, direct drawing and photo-silkscreen. Emphasizing the expressive potential of the medium to create a personal visual statement.

121G FOUNDATION PRINT: RELIEF PAINTING
Hee Sook Kim
A seven-week course covering various techniques and approaches to the art of the woodcut and the linocut, emphasizing the study of design principles and the expressive potential of the medium to create a personal visual statement.

123H FOUNDATION PRINTMAKING: ETCHING
Hee Sook Kim
A seven-week course covering various techniques and approaches to intaglio printmaking including monotypes, soft and hard ground, line, aquatint, chine collage and viscosity printing. Emphasizing the expressive potential of the medium to create a personal visual statement.

124D FOUNDATION PRINTMAKING: MONOTYPE
Hee Sook Kim
Basic printmaking techniques in Monotype medium. Painterly methods, direct drawing, stencils, brayer techniques for beginners in printmaking will be taught. Color, form, shape, and somposition in 2-D format will be explored. Individual and group critiques will be employed.

216B HISTORY OF PHOTOGRPHY
William Williams
An introductory survey course about the history of photography from its beginnings in 1839 to the present. The goal is to understand how photography has altered perceptions about the past, created a new art form, and become a hallmark of modern society.

218B CHINESE CALLIGRAPHY
Ying Li
This course combines studio practice and creating art projects with slide lectures, readings, and museum visits. Students will study the art of Chinese Calligraphy, and its connection with Western art. No Chinese language required.

223 PRINTMAKING: ETCHING—MATERIALS AND TECHNIQUES
Hee Sook Kim
Concepts and techniques of B/W & Color Intaglio. Line etching, aquatint, soft and hard ground, chin-colle techniques will be explored as well as visual concepts. Developing personal statements will be encouraged. Individual and group critiques will be employed.

224A COMPUTER & PRINTMAKING
Hee Sook Kim
Computer-generated images and printmaking techniques. Students create photographic, computer processed, and directly drawn images on lithographic polyester plates and zinc etching plates. Classwork is divided between the computer lab and the printmaking studio to create images using both image processing software and traditional printmaking methods, including lithography, etching, and silk-screen. Class encourages broad experimental approaches to printmaking and computer techniques. and employs individual and group critiques.

227B FILM ON PHOTOGRAPHY
John Muse
An encounter with films, both experimental and traditional, that explicitly treat photographs as problems and as troubling reminders. Through careful viewing and close reading of pertinent texts by Roland Barthes, Walter Benjamin, Raymond Bellour, and others, we consider how the difference between photography and film, as these films elaborate, constitutes our "counter-memories."

231A DRAWING (2-D): ALL MEDIA
Ying Li
Class encourages students to experiment with various drawing media and to explore the relationships between media, techniques, and expression. Each student strives to develop a personal approach to drawing, while addressing fundamental issues of pictorial space, structure, scale, and rhythm. Students work from observation, conceptual ideas, and imagination. Course includes drawing projects, individual and group critiques, slide lectures, and museum and gallery visits.

233A PAINTING: MATERIALS AND TECHNIQUES
Ying Li
Class encourages students to experiment with various painting techniques and materials in order to develop a personal approach to self-expression. We emphasize form, color, texture, and the relationship among them; influences of various techniques upon the expression of a work; and the characteristics and limitations of different media. Students work from observation, conceptual ideas, and imagination. Course includes drawing projects, individual and group critiques, slide lectures, and museum and gallery visits.

233B PAINTNG: MATERIALS AND TECNIQUES
Ying Li
Class encourages students to experiment with various painting techniques and materials in order to develop a personal approach to self-expression. We emphasize form, color, texture, and the relationship among them; influences of various techniques upon the expression of a work; and the characteristics and limitations of different media. Students work from observation, conceptual ideas, and imagination. Course includes drawing projects, individual and group critiques, slide lectures, and museum and gallery visits.

243 SCULPTURE: MATERIALS AND TECHNIQUES
Markus Baenziger
This course gives students an in-depth introduction to a comprehensive range of three-dimensional concepts and fabrication techniques. Emphasis is on wood and metal working, and the class introduces additional processes such as casting procedures for a range of synthetic materials. We encourage students to develop their own visual vocabulary and to understand their ideas in the context of contemporary sculpture. Projects are designed to provide students with a framework to explore all sculptural techniques introduced in class, while developing their own personal form of visual expression. Students may repeat the course for credit.

250A THEORY AND PRACTICE OF EXHIBIT
John Muse
An introduction to the theory and practice of exhibition and display. This course supplies students with the analytic tools necessary to understand how exhibitions work and give them practical experience making arguments with objects, images, texts, and events.

251 PHOTOGRAPHY: MATERIALS AND TECHNIQUES
William Williams
Class encourages students to develop an individual approach to photography and places emphasis on the creation of color photographic prints that express plastic form, emotions, and ideas about the physical world. Work is critiqued weekly to give critical insights into editing of individual student work and the use of the appropriate black-and-white photographic materials, in analog or digital formats, necessary to give coherence to that work. Study of the photography collection, gallery and museum exhibitions, lectures, and a critical analysis of photographic sequences in books and a research project supplement the weekly critiques. In addition, students produce a handmade archival box to house their work, which is organized into a loose sequence and mounted to archival standards. Prerequisite: Fine Arts 103 or equivalent.

321B EXPERIMENTAL STUDIO: LITHOGRAPHY
Hee Sook Kim
This advanced course covers Color Etching using multiple plates: viscosity printing, line etching, aquatint, soft-ground, surface roll, Chin-collè, plate preparation, registration, and editioning. Students study techniques and concepts in Intaglio method as well as visual expressions through hands-on experiences. The class requires development of technical skills of Intaglio and personal visual study and encourages creative and experimental approaches beyond two-dimensional outcomes. The class requires a strong body of work following a specific theme. Individual discussions and group critiques are held periodically. The instructor also requests additional research on the history of printmaking.

331A EXPERIMENTAL STUDIO: DRAWNG
Ying Li
Students build on the work done in 200-level courses, to develop further their individual approach to drawing. Students are expected to create projects that demonstrate the unique character of drawing in making their own art. Completed projects are exhibited at the end of semester. Class includes weekly critiques, museum visits, and visiting artists' lectures and critiques.

Each student presents a 15-minute slide talk and discussion of either their own work or the work of artists who influenced them.

333A EXPERIMENTAL STUDIO: PAINTING
Ying Li
Students build on the work done in 200-level courses to develop further their individual approach to painting. Students are expected to create projects that demonstrate the unique character of their chosen media in making their own art. Completed projects are exhibited at the end of semester. Class includes weekly critiques, museum visits, and visiting artists' lectures and critiques. Each student presents a 15-minute slide talk and discussion of either their own work or the work of artists who influenced them.

343B EXPERIMENTAL STUDIO: SCULPTURE
Markus Baenziger
This studio course encourages the student to experiment with ideas and techniques with the purpose of developing a personal expression. We expect that the student already has a sound knowledge of the craft and aesthetics of sculpture and is at a stage where personal expression has become possible. Students may repeat the course for credit.

351A EXPERIMENTAL STUDIO: PHOTO
William Williams
Students produce an extended sequence of their work in either book or exhibition format, using black and white or color photographic materials. The sequence and scale of the photographic prints are determined by the nature of the student's work. Weekly classroom critiques, supplemented by an extensive investigation of classic photographic picture books and related critical texts, guide students to the completion of their course work. This two-semester course consists of the book project first semester and the exhibition project second semester. At the end of each semester the student may exhibit his/her project.

499A SENIOR DEPARTMENTAL STUDIES
Ying Li
The student reviews the depth and extent of experience gained, and in so doing creates a coherent body of work expressive of the student's insights and skills. At the end of the senior year the student is expected to produce a show of his or her work.

460B TEACHING ASSISTANT
Ying Li

499B SENIOR DEPARTMENTAL STUDIES
The student reviews the depth and extent of experience he or she has gained, and in so doing creates a coherent body of work expressive of the student's insights and skills. At the end of the senior year the student is expected to produce a show of his or her work.

FRENCH AND FRANCAPHONE STUDIES

haverford.edu/french

The Bi-College (Bi-Co) French and Francophone Studies program at Haverford and Bryn Mawr is recognized as one of the top undergraduate French programs in the country. It offers a variety of courses and two options for the major. The major in French lays the foundation for an understanding and appreciation of French language and of French and Francophone cultures through their literatures and the history of their arts, thought, and institutions.

Course offerings serve those with particular interest in French and Francophone literature, literary theory, and criticism, as well as those with particular interest in studying France and French-speaking countries from an interdisciplinary perspective. A thorough knowledge of French is a common goal for both options, and texts and discussion in French are central to the program. The faculty teaches all courses in the program exclusively in French. Our courses adopt a variety of approaches, including literary studies, film and media studies, social history of ideas, and the study of politics and popular culture.

Our program is known for its rigor: Since we have a graduate program on the Bryn Mawr side of the Bi-Co department, our undergraduate offerings profit from the presence of a faculty equipped to teach undergraduate as well as graduate courses and from the presence of graduate students in our most advanced courses. Furthermore, unlike at universities and Ivy League institutions, faculty rather than graduate students teach our undergraduates in French—and in languages in general. Study abroad in France or in another Francophone country is an integral part of our students' training. Virtually all majors spend one semester or a full year abroad (see below).

CURRICULUM

Majors and minors choose between:

- a literature concentration, with courses in periods, genres, thematic clusters, and individual authors, ranging from the Middle Ages to the most recent 21st-century texts; and
- an interdisciplinary concentration, with courses that cover the history of French civilization and particular problems of French and Francophone cultures, such as environmental issues and questions of identity.

Unless they have not previously studied French, all entering students (freshmen and transfers) who wish to pursue their study of French must take a placement examination upon entrance to Haverford and Bryn Mawr. Those students who begin French have two options. They may study the language

- in the intensive sections (the sequence FREN 001–002 of Intensive Elementary French – only at Bryn Mawr); or
- in the non-intensive sections (the sequence FREN 001–002 of Non-Intensive Elementary French on both campuses).

The 100-level courses introduce students to the study of French and Francophone literatures and cultures, and give special attention to the speaking and writing of French.

Courses at the 200 level treat French and Francophone literatures and civilizations from the beginning to the present day. Two 200-level courses are devoted to advanced language training, and one to the study of theory. Students who pursue French to the 200 level often find it useful to take as their first 200-level course, either FREN 212 (Grammaire avancée) or FREN 260 (Atelier d'écriture).

At the intermediate-level students also have the choice to study the language non-intensively (the sequence FREN 003–004), or intensively (FREN 005).

- FREN 003–004 (Non-Intensive Intermediate French) is a year-long course, requiring both

semesters for credit. It is open to students who have taken FREN 001–002 or been placed by departmental examination.
- FREN 005 (Intensive Intermediate French):
  - o is open only to students who have been specially placed by the departmental placement exam or to students who have taken the Intensive Elementary course.
  - o requires its graduates to take FREN 102 (Introduction à l'analyse littéraire et culturelle II), or FREN 105 (Directions de la France contemporaine) in semester II for credit.
- FREN 003 and FREN 005 are only offered in the fall semester.

Although it is possible to major in French using either of the two sequences, we encourage students placed at the 001 level who are considering doing so to take the intensive option.

Advanced (300-level) courses offer detailed study either of individual authors, genres, and movements or of particular periods, themes, and problems in French and Francophone cultures. For both options, the departments admit students to advanced courses after satisfactory completion of two semesters of 200-level courses in French.

The department of French also cooperates with the departments of Italian and Spanish in the Romance Languages major.

MAJOR REQUIREMENTS

There are two concentration options:

1. French and Francophone Literature:
- FREN 005–102 or 005–105; or FREN 101–102 or 101–105
- FREN 212 or 260
- FREN 213 (Approches théoriques/Theory in Practice)
- three semesters of 200-level literature courses
- two semesters of 300-level literature courses
- the two-semester Senior Experience, comprised of:
  - o Senior Conference in the fall semester
  - o in the spring semester, either a senior essay, written in the context of a third 300–level course, or a senior thesis. Both the senior thesis and essay include a final oral defense. (For details, see The Senior Experience section.)

2. Interdisciplinary Studies in French:
- FREN 005–102 or FREN 005–105; or FREN 101–102 or FREN 101–105
- FREN 212 or 260
- two 200–level courses within the French departments: e.g., FREN 255, 291, or 299
- two 200–level courses chosen by the student outside the French departments (at Haverford/Bryn Mawr or Junior Year Abroad) that contribute coherently to his/her independent program of study
- FREN 325 or 326 (Etudes avancées de civilisation)
- two 300–level courses outside the French departments
- a thesis of one semester in French or English. (For details, see The Senior Experience section.). Students interested in this option must present the rationale and the projected content of their program for departmental approval during their sophomore year; they should have strong records in French and the other subjects involved in their proposed program.

For both concentrations, all French majors:
- must acquire fluency in the French language, both written and oral.
- must take FREN 212 or 260, or their equivalent, unless specifically exempted by the department.

Often our graduates have chosen to double major, in political science, economics, anthropology, comparative literature, or in the natural sciences (chemistry, physics, and mathematics, most recently); some opt to minor or concentrate in a related field, such as art history or international economic relations.

MINOR REQUIREMENTS

- FREN 005–102 or 005–105; or FREN 101–102 or 101–105
- FREN 212 or 260
- four courses at the 200 and 300 levels. At least one course must be at the 300 level.

STUDY ABROAD

Students majoring in French may, by a joint recommendation of the deans of the colleges and the department of French, be allowed to spend their junior year in France under one of the junior year plans approved by their respective college; those organized by Sweet Briar and Wellesley College are approved by both Haverford and Bryn Mawr. Haverford students may also apply to IES programs in France..

Most French majors either study abroad or apply to spend their sophomore or junior summer at the the Institut d'Etudes Françaises d'Avignon, held under the auspices of Bryn Mawr. The Institute is designed for selected undergraduate and graduate students who anticipate professional careers requiring a knowledge of the language and civilization of France and French-speaking countries. The curriculum includes general and advanced courses in French language, literature, social sciences, history, art, and economics (including the possibility of internships in Avignon). The program is open to students of high academic achievement who have completed a course in French at the third-year level or the equivalent.

THE SENIOR EXPERIENCE

After Senior Conference in the fall semester of senior year, students doing the French and Francophone Literature concentration have two options for the spring semester:

- write a thesis (30–40 pp.) under the direction of a faculty member, which allows students who have already developed a clearly defined subject in the fall semester to pursue independent research and writing a thesis with a faculty supervisor; or
- write an essay (15–20 pp.) in the context of a 300–level course. This option offers students the opportunity to produce a substantial, but shorter piece of research within the structure of their 300–level course in the spring semester. This appeals, for example, to double-majors with another thesis or to pre-medical students.

For the Interdisciplinary Studies in French concentration, students take FREN 325 or 326 in their senior year and, if they have not already done so, complete the two 300–level courses required outside the department. In the Spring semester they write a thesis in French or English under the direction of a member of the French faculty and a mentor outside the department.

FRENCH TEACHER CERTIFICATION

The Department of French offers a certification program in secondary teacher education. For more information, see the description of the Education Program.

FRENCH A.B./M.A. PROGRAM

Particularly well-qualified students may undertake work toward the joint A.B./M.A. degree in French. Students may complete such a program in four or five years and undertake it with the approval of the department and of the dean of Bryn Mawr's Graduate School of Arts and Sciences.

FACULTY

AT HAVERFORD:

Koffi Anyinefa
Chair and Professor

Kathryne Adair Corbin
Lecturer

David L. Sedley
Associate Professor

AT BRYN MAWR:

Grace M. Armstrong
Chair, Eunice Morgan Schenck 1907 Professor, and major advisor

Francis Higginson
Associate Professor

Brigitte Mahuzier
Professor

Rudy Le Menthéour
Assistant Professor and Director of the Avignon Institute

Agnès Peysson-Zeiss
Lecturer

COURSES

001 ELEMENTARY FRENCH

Kathryne Adair Corbin

The speaking and understanding of French are emphasized particularly during the first semester. The work includes regular use of the Language Learning Center and is supplemented by intensive oral practice sessions. The course meets in intensive (nine hours each week) and non-intensive (five hours each week) sections. This is a year-long course; both semesters (001 and 002) are required for credit.

003 INTERMEDIATE FRENCH NONINTEN.

The emphasis on speaking and understanding French is continued, texts from French literature and cultural media are read, and short papers are written in French. Students use the Language Learning Center regularly and attend supplementary oral practice sessions. The course meets in non-intensive (three hours each week) sections which are supplemented by an extra hour per week with an assistant. This is a year-long course; both semesters (003 and 004) are required for credit.

004 INTERMEDIATE FRENCH

The emphasis on speaking and understanding French is continued, texts from French literature and cultural media are read, and short papers are written in French. Students use the Language Learning Center regularly and attend supplementary oral practice sessions. The course meets in non-intensive (three hours each week) sections which are supplemented by an extra hour per week with an assistant. This is a year-long course; both semesters (003 and 004) are required for credit.

004 INTERMEDIATE FRENCH

The emphasis on speaking and understanding French is continued, texts from French literature and cultural media are read, and short papers are written in French. Students use the Language Learning Center regularly and attend supplementary oral practice sessions. The course meets in non-intensive (three hours each week) sections which are supplemented by an extra hour per week with an assistant. This is a year-long course; both semesters (003 and 004) are required for credit.

004 INTERMEDIATE FRENCH

Ivan Benjamin Cherel

The emphasis on speaking and understanding French is continued, texts from French literature and cultural media are read, and short papers are written in French. Students use the Language Learning Center regularly and attend supplementary oral practice sessions. The course meets in non-intensive (three hours each week) sections which are supplemented by an extra hour per week with an assistant. This is a year-long course; both semesters (003 and 004) are required for credit.

005 INTENSIVE INTERMEDIATE FRENCH

Presentation of essential problems in literary and cultural analysis by close reading of works selected from various periods and genres and by analysis of voice and image in French writing and film. Participation in discussion and practice in written and oral expression are emphasized, as are grammar review and laboratory exercises. Open only to graduates of Intermediate French or to students specially placed by the department.

101 INTRODUCTION A L'ANALYSE LITTE

Kathryne Adair Corbin

Continued development of students' expertise in literary and cultural analysis by emphasizing close reading as well as oral and written analyses of works chosen from various genres and periods of French/Francophone works in their written and visual modes. Readings begin with comic theatre of the seventeenth and eighteenth centuries and build to increasingly complex nouvelles, poetry, and novels of the nineteenth and twentieth centuries. Participation in guided discussion and practice in oral/written expression continue to be emphasized, as are grammar review and laboratory exercises. Offered in second semester.

101 INTRODUCTION A L'ANALYSE LITTE

An examination of contemporary society in France and Francophone cultures as portrayed in recent documents and film. Emphasizing the tension in contemporary French-speaking societies between tradition and change, the course focuses on subjects such as family structures and the changing role of women, cultural and linguistic identity, an increasingly multiracial society, the individual and institutions (religious, political, educational), and les loisirs. In addition to the basic text and review of grammar, readings are chosen from newspapers, contemporary literary texts, magazines, and they are complemented by video materials. Offered in the second semester.

102 TEXTES,IMAG,VOIXII

Koffi Anyinefa

A general review of the most common difficulties of the French language. Practice in composition, translation, and conversation.

105 DRCTNS/FREN CNTMPR

Kathryne Adair Corbin

This course provides exposure to influential Twentieth-Century French theorists while bringing these thinkers to bear on appropriate literary texts. It hones students' critical skills while

expanding their knowledge of French intellectual history. The explicitly critical aspect of the course will also serve students throughout their coursework, regardless of field.

212 GRAMMAIRE AVANCE
Kathryne Adair Corbin
Objective of the course is to introduce students to Quebecois literature through a representative sample of literary texts (poetry, novel and drama), from the Revolution Tranquille of the 1960s until today: what are its majors themes, its main formal features, its cultural specificity? What are the historical and cultural contexts that have shaped it?

213 APPR CRITIQUES THR
Koffi Anyinefa

253 INTRO LITT QUEBEC
Koffi Anyinefa

312 ADVANCED TOPICS IN FRENCH LIT
Koffi Anyinefa

312 ADVANCED TOPICS
Kathryne Adair Corbin

GENDER AND SEXUALITY STUDIES (BI-CO)

brynmawr.edu/gender

Gender and Sexuality Studies is an interdisciplinary bi-college program that draws on the faculties of both Bryn Mawr and Haverford in a variety of departments, including anthropology, archeology, biology, economics, education, English, French, German, Greek, Growth and Structure of Cities, history, history of art, Italian, philosophy, political science, psychology, religion, sociology, and Spanish, as well as interdisciplinary programs such as African and Africana Studies, Comparative Literature, and East Asian Language and Culture. Students graduate from the program with a high level of fluency and rigor in their understanding of how issues of gender and sexuality shape our lives as individuals and as members of larger communities, both local and global.

Courses draw upon and speak to feminist theory and women's studies; transnational and third-world feminisms; womanist theory and the experiences of women of color; the construction of masculinity and men's studies; lesbian, bisexual, gay, queer, and transgendered/transsexual studies; and gender as inflected in and by class, race, religion, and nationality.

Following graduation, concentrators, minors, and majors enter advanced degree programs in graduate and professional schools, while others secure employment in a variety of fields, including advocacy, education, media, policy, public health, research, and social services.

CURRICULUM

Students choosing a concentration, minor, or independent major in Gender and Sexuality Studies plan their programs in consultation with the Gender and Sexuality coordinator on their home campus. Each year, approximately twenty students complete an approved curriculum in this area of study.

CONCENTRATION REQUIREMENTS

(1) An introductory course for first-and second-year students with no prior knowledge of the field; may be fulfilled by a variety of courses, including (but not limited to) Anthropology 204 (Anthropology of Gender); Philosophy 105 (Love, Friendship, and the Ethical Life); and Political Science 123 (American Politics: Difference and Discrimination). Equivalent courses at Bryn Mawr, Swarthmore, and the University of Pennsylvania are also acceptable.
(2) The core course, 290 (Interdisciplinary Perspectives on Gender and Sexuality), intended for juniors and seniors who have completed other work in the program. Two faculty members—one from Haverford and one from Bryn Mawr, from different disciplinary backgrounds—team teach this interdisciplinary course.
(3) Four additional approved courses from at least two different departments, two of which are normally at the 300 level. Units of Independent Study (480a,b) may be used to fulfill this requirement.

At least two courses, but no more than three, must be in the student's major discipline.

MINOR REQUIREMENTS

Requirements for the minor are identical to those of the concentration, with the stipulation that no courses in Gender and Sexuality overlap with courses the student takes to fulfill requirements in the major.

Neither a senior seminar nor a senior thesis is required for the concentration or the minor. However, with the permission of the major department, a student may choose to count toward the concentration (but not the minor) a senior thesis with a significant focus on the theoretical and critical issues foregrounded in gender and sexuality studies.

Students wishing to construct an independent major in Gender and Sexuality Studies must submit a proposal to the College Committee on Student Standing and Programs (CSSP) for approval.

FACULTY COORDINATORS

AT HAVERFORD:
Anne McGuire
Kies Family Associate Professor in the Humanities, Associate Professor of Religion

AT BRYN MAWR:
Sharon Ullman
Professor of History
sullman@brynmawr.edu

COURSES AT HAVERFORD

FALL

HLTH H311 REPRODUCTIVE HEALTH AND JUSTICE (CROSS-LISTED WITH ICPR)

ICPR H290 INTERDISCIPLINARY PERSPECTIVES IN GENDER

ICPR H311 REPRODUCTIVE HEALTH AND JUSTICE (CROSS-LISTED WITH HEALTH STUDIES)

SPRING

ENGL H301 TOPICS IN MIDDLE ENGLISH: MEDIEVAL PERFORMANCE

ENGL H363 TOPICS IN AMERICAN LITERATURE

ENGL H381 TEXTUAL POLITICS: MARXISM, FEMINISM, AND THE DECONSTRUCTION

GERM H320 IMPOSSIBLE REPRESENTATIONS: THE HOLOCAUST IN LITERATURE AND FILM

PHIL H105 LOVE, FRIENDSHIP, AND THE ETHICAL LIFE

PHIL H106 THE PHILOSOPHY OF CONSCIOUSNESS AND THE PROBLEM OF EMBODIMENT

COURSES AT BRYN MAWR

FALL

ANTH B101 INTRODUCTION TO ANTHROPOLOGY

ANTH B354 IDENTITY, RITUAL, AND CULTURE IN VIETNAM

ARCH B254 CLEOPATRA

CITY B205 SOCIAL INEQUALITY

COMLB322 SPANISH QUEENS, NUNS, AND DEVIANTS

ENGL B262 AFRICAN AMERICAN LITERATURE

ENGL B270 AMERICAN GIRL

ENGL B293 INTRODUCTION TO CRITICAL FEMINIST STUDIES

ENGL B297 TERROR, PLEASURE, AND THE GOTHIC IMAGINATION

ENGL B333 LESBIAN IMMORTAL

ENGLB368 PLEASURE, LUXURY, AND CONSUMPTION

GREK B201 PLATO AND THUCYDIDES

HART B107 SELF AND OTHER IN THE ARTS OF FRANCE

HIST B284 MOVIES AND AMERICA

HIST B303 TOPICS IN AMERICAN HISTORY: HISTORY OF MEDICINE IN AMERICA

HIST B319 TOPICS IN MODERN EUROPEAN HISTORY: HISTORY OF PSYCHOANALYSIS

HIST B336 TOPICS IN AFRICAN HISTORY: HISTORY OF DISEASE AND MEDICINE

HIST B368 TOPICS IN MEDIEVAL HISTORY: SEX, GENDER, AND THE MEDIEVAL BODY

PHIL B205 MEDICAL ETHICS

PHIL B221 ETHICS

SOCL B102 SOCIETY, CULTURE, AND THE INDIVIDUAL

SOCLB205 SOCIAL INEQUALITY

SOCL B217 THE FAMILY IN SOCIAL CONTEXT

SPAN B223 GÉNERO Y MODERNIDAD EN LA NARRATIVA DEL SIGLO XIX

SPAN B322 SPANISH QUEENS, NUNS, AND DEVIANTS

SPRING

ANTH B102 INTRODUCTION TO CULTURAL ANTHROPOLOGY

ANTH B102 INTRODUCTION TO CULTURAL ANTHROPOLOGY

ANTH B238 CHINESE CULTURE AND SOCIETY

ANTH B268 MARRIAGE AND FAMILY

COML B245 APPROACHES TO GERMAN LITERATURE AND CULTURE

COMLB321 ADVANCED TOPICS IN GERMAN CULTURAL STUDIES: EXILE IN TRANSLATION

ENGL B210 RENAISSANCE LITERATURE: PERFORMANCES OF GENDER

ENGL B218 ECOLOGICAL IMAGININGS

ENGL B254 AMERICAN LITERATURE, 1750–1900

ENGL B284 WOMEN POETS

GERM B245 APPROACHES TO GERMAN LITERATURE AND CULTURE

GERM B321 ADVANCED TOPICS IN GERMAN CULTURAL STUDIES: EXILE IN TRANSLATION

HART B108 WOMEN, FEMINISM, AND THE HISTORY OF ART

HART B348 TOPICS IN GERMAN ART: EXILE IN TRANSLATION

HIST B325 TOPICS IN SOCIAL HISTORY:

PHIL B252 FEMINIST THEORY

PHIL B344 DEVELOPMENT ETHICS

POLSB253 FEMINIST THEORY

POLS B290 POWER AND RESISTANCE

POLS B344 DEVELOPMENT ETHICS

POLS B375 GENDER, WORK, AND FAMILY

SOCL B257 MARGINALS AND OUTSIDERS

SOCL B375 GENDER, WORK, AND FAMILY

SPAN B265 ESCRITORAS ESPANOLAS

COURSES AT SWARTHMORE

FALL

GSST 001 INTRODUCTION TO GENDER AND SEXUALITY STUDIES

GSST 020 SPECIAL TOPICS: QUEER MEDIA

GSST 092 GENDER AND SEXUALITY STUDIES THESIS

GSST 093 DIRECTED READING

GEOLOGY AT BRYN MAWR COLLEGE

brynmawr.edu/geology

Students may complete a major or minor in Geology. Within the major, students may complete concentrations in geoarchaeology or geochemistry.

The department seeks to give students a well-rounded earth science education that balances fundamental knowledge of geology with broadly applicable problem-solving and communication skills. The integrated science of geology combines biology, chemistry and physics as they apply to the workings of Earth and other planets. Well-trained geoscientists are increasingly in demand to address the environmental challenges and natural resource limitations of the modern world. A central tenet for understanding and predicting Earth processes and environmental change is the ability to decipher past Earth history from geologic records. Thus the major in Geology includes study of the physics and chemistry of Earth materials and processes; the history of the Earth and its organisms; and the range of techniques used to investigate the past and present workings of the Earth system. Field and lab experiences are essential parts of geology training, and at Bryn Mawr field trips and lab work are part of all introductory courses, most other classes, and most independent research projects.

CURRICULUM

GEOLOGY MAJOR REQUIREMENTS

Thirteen courses are required for the major: GEOL 101 and 102 or 103; 202, 203, 204, and 205; at least two semesters of quantitative or computational coursework, e.g., MATH 101 and 102 or alternates approved by the adviser; a two semester sequence of CHEM (103-104) or PHYS (101-102 or 121-122); GEOL 399; and either two advanced geology courses or one advanced geology course and an additional upper-level course in biology, chemistry, mathematics, physics, or computer science.

The writing requirement for the major in Geology is fulfilled in GEOL 203. This course includes a semester-long research project culminating in a scientific manuscript based on material collected in the field by enrolled students.

Additional courses in the allied sciences are strongly recommended and are required by most graduate schools. A student who wishes to follow a career in geology should plan to attend a summer field course, usually following the completion of the 200-level courses.

All geology majors participate in a senior capstone experience (GEOL 399), which is structured into a two-semester seminar that meets weekly for 1.5 hours for a total of 1.0 credit (0.5 credits per semester). The focus of the capstone seminar is to reinforce students' ability to address geoscience questions and to communicate their findings in writing and orally. The team-taught senior seminar integrates the student's major curriculum with weekly speakers or peer-led discussions on cutting edge research, and the impact and relevance of geology to modern society.

SENIOR THESIS

At the discretion of the department faculty, rising seniors may undertake an independent thesis project (GEOL 403) in addition to mandatory full participation in the senior capstone seminar (GEOL 399). Student thesis projects must be supervised by a faculty advisor. The senior thesis is modeled after a Master's thesis project, but is scaled down for the different time frame (one year versus two years) and educational level of a senior undergraduate student. The thesis project plan is initially developed and agreed upon through consultation between the supervising faculty member(s) and the student. The student conducts most of the research independently. The advisor serves as a source of ideas concerning scientific literature, methodologies and project support. The advisor may visit and inspect the research sites, laboratory or model, and offer

advice on how the research should be conducted or modified.

If approved to undertake a senior thesis, a student will enroll in GEOL 403 each of her final two semesters for a total of 1.0 credit (0.5 credits per semester). The thesis option adds the equivalent of one course to the standard Geology major requirements. The first semester will focus on thesis topic formulation, background research and initiation of appropriate data acquisition. At the end of the first semester, the student must submit a formal written project proposal to department faculty members. This research proposal must demonstrate the student's ability to successfully complete her thesis during the following semester. Following review of submitted proposals, students or faculty members may choose or recommend, respectively, not to complete the independent thesis, in which case the student would not enroll for the second semester of GEOL 403.

GEOLOGY MINOR REQUIREMENTS

A minor in geology consists of two 100-level geology courses, and any four of the 200- or 300-level courses offered by the department. Two 0.5 credit courses may be combined to count toward one of the 100-level courses. Alternatively, an additional 200- or 300-level course may be substituted for one of the 100-level courses to meet the minor requirements.

CONCENTRATION IN GEOARCHAEOLOGY

The geoarchaeology concentration allows students majoring in anthropology, archaeology or geology to explore the connections among these fields with respect to how our human ancestors interacted with past environments, and how traces of human behavior are preserved in the physical environment. In geology, the geoarchaeology concentration consists of 13 courses: GEOL 101 or 102 or 103; 202, 203, 204, 205, 270, and 399; two semesters of chemistry; two semesters of math, statistics or computational methods; ARCH 101, ANTH 101, or ARCH 135 (a half-credit laboratory course in archaeological fieldwork methods); and one 200- or 300-level elective from among current offerings in Anthropology or Classical and Near Eastern Archaeology. Paperwork for the concentration should be filed at the same time as the major work plan. For course planning advice, consult with Don Barber (Geology), Rick Davis (Anthropology) or Peter Magee (Archaeology).

CONCENTRATION IN GEOCHEMISTRY

The geochemistry concentration encourages students majoring either in geology or in chemistry to design a course of study that emphasizes Earth chemistry. Paperwork for the concentration should be filed at the same time as the major work plan. For a Geology Major with a concentration in Geochemistry, the following are required in addition to Geology Major requirements: CHEM 103 (General Chemistry) and CHEM 104 (General Chemistry II), CHEM 211(Organic Chemistry) or CHEM 231 (Inorganic Chemistry), GEOL 302 (Low Temperature Geochemistry) or GEOL 305 (Igneous and Metamorphic Petrology) or GEOL 350 (requires major advisor approval), one additional 300-level geochemistry-themed GEOL course or one additional advanced CHEM course. For a Chemistry Major with a concentration in Geochemistry, the following are required in addition to Chemistry major requirements (see Chemistry major advisor): GEOL 101 (How the Earth Works), GEOL 202 (Mineralogy/ Crystal Chemistry), two additional 300-level geochemistry-themed GEOL courses including GEOL 302 (Low Temperature Geochemistry) or GEOL 305 (Igneous and Metamorphic Petrology) or GEOL 350 (requires Geology major advisor approval). For course planning advice, contact Pedro Marenco, Lynne Elkins (Geology) or Sharon Burgmayer (Chemistry).

DEPARTMENTAL HONORS

Honors are awarded to students who have outstanding academic records in geology and allied fields, and whose research is judged by the faculty of the department to be of the highest quality.

FACULTY

Arlo Brandon Weil
Chair and Professor of Geology
(on leave spring 2015)

Don Barber
Associate Professor of Geology on the Harold Alderfer Chair in Environmental Studies

Selby Cull
Assistant Professor of Geology
(on leave 2014–2015)

Lynne J. Elkins
Lecturer in Geology and Director of the Undergraduate Summer Science Research Program (on leave spring 2015)

Katherine Marenco
Lecturer

Pedro J. Marenco
Assistant Professor of Geology on the Rosabeth Moss Kanter Change Master Fund

COURSES

GEOL B101 HOW THE EARTH WORKS

L. Elkins, A. Weil
An introduction to the study of planet Earth—the materials of which it is made, the forces that shape its surface and interior, the relationship of geological processes to people, and the application of geological knowledge to the search for useful materials. Laboratory and fieldwork focus on learning the tools for geological investigations and applying them to the local area and selected areas around the world. Three lectures and one afternoon of laboratory or fieldwork a week. One required one-day field trip on a weekend.

GEOL B102 EARTH: LIFE OF A PLANET

K. Marenco
The history of the Earth from its beginning and the evolution of the living forms that have populated it. Three lectures, one afternoon of laboratory a week. A required two-day (Sat-Sun) field trip is taken in April.

GEOL B103 EARTH SYSTEMS AND THE ENVIRONMENT

K. Marenco, D. Barber
This integrated approach to studying the Earth focuses on interactions among geology, oceanography, and biology. Also discussed are the consequences of population growth, industrial development, and human land use. Two lectures and one afternoon of laboratory or fieldwork per week. A required two-day (Fri.-Sat.) field trip is taken in April. Crosslisted as CITY-B103.

GEOL B110 FOCUS: EXPLORING TOPICS IN THE EARTH SCIENCES

This half-credit Focus course explores engaging topics in the Earth Sciences at a level appropriate for students with no prior coursework in geology. Course content varies. Recent topics include Living with Volcanoes, Origin of Life, Geology in Film, and Earth's Future Climate. (Not Offered 2014-2015)

GEOL B125 FOCUS: GEOLOGY IN FILM

P. Marenco
This is a half semester Focus course. Geologic processes make for great film storylines, but filmmakers take great liberty with how they depict scientific "facts" and scientists. We will explore how and why filmmakers choose to deviate from science reality. We will study and view one film per week and discuss its issues from a geologist's perspective.

GEOL B202 MINERALOGY AND CRYSTAL CHEMISTRY

L. Elkins
The crystal chemistry of representative minerals as well as the relationship between the physical properties of minerals and their structures and chemical compositions. Emphasis is placed on mineral identification and interpretation. The occurrence and petrography of typical mineral associations and rocks is also covered. Lecture three hours, laboratory at least three hours a week. One required field trip on a weekend. Prerequisite: Introductory course in geology or chemistry (both recommended).

GEOL B203 INVERTEBRATE PALEOBIOLOGY

K. Marenco
Biology, evolution, ecology, and morphology of the major marine invertebrate fossil groups. Lecture three hours and laboratory three hours a week. A semester-long research project culminating in a scientific manuscript will be based on material collected on a two-day trip to the Tertiary deposits of the Chesapeake Bay.

GEOL B204 STRUCTURAL GEOLOGY

An introduction to the study of rock deformation in the Earth's lithosphere viewed from all scales - from the microscopic (atomic scale) to the macroscopic (continental scale). This class focuses on building a foundation of knowledge and understanding that will allow students to broaden their appreciation and understanding of the complexity of the Earth system and the

links between geologic structures at all scales and plate tectonics. Three lectures and three hours of laboratory a week, plus weekend field trips. Prerequisites: GEOL 101 and MATH 101. (Not Offered 2014-2015)

GEOL B205 SEDIMENTARY MATERIALS AND ENVIRONMENTS

D. Barber

An introduction to sediment transport, depositional processes, and stratigraphic analysis, with emphasis on interpretation of sedimentary sequences and the reconstruction of past environments. Three lectures and one lab a week, plus a weekend field trip. Prerequisite: GEOL 101, 102, 103 or instructor permission. Recommended: GEOL 202 and 203.

GEOL B206 ENERGY RESOURCES AND SUSTAINABILITY

An examination of issues concerning the supply of energy and raw materials required by humanity. This includes an investigation of the geological framework that determines resource availability, and of the social, economic, and political considerations related to energy production and resource development. Two 90-minute lectures a week. Prerequisite: One year of college science. (Not Offered 2014-2015)

GEOL B209 NATURAL HAZARDS

A quantitative approach to understanding the earth processes that impact human societies. We consider the past, current, and future hazards presented by geologic processes, including earthquakes, volcanoes, landslides, floods, and hurricanes. The course includes discussion of the social, economic, and policy contexts within which natural geologic processes become hazards. Case studies are drawn from contemporary and ancient societies. Lecture three hours a week. Prerequisite: One semester of college science or permission of instructor. Crosslisted as CITY-B210. (Not Offered 2014-2015)

GEOL B236 EVOLUTION

P. Marenco

A lecture/discussion course on the development of evolutionary biology. This course will cover the history of evolutionary theory, population genetics, molecular and developmental evolution, paleontology, and phylogenetic analysis. Lecture three hours a week. Crosslisted as BIOL-B236; ANTH-B236

GEOL B250 COMPUTATIONAL METHODS IN THE SCIENCES

S. Record

A study of how and why modern computation methods are used in scientific inquiry. Students will learn basic principles of simulation-based programming through hands-on exercises. Content will focus on the development of population models, beginning with simple exponential growth and ending with spatially-explicit individual-based simulations. Students will design and implement a final project from their own disciplines. Six hours of combined lecture/lab per week. Crosslisted as BIOL-B250; CMSC-B250.

GEOL B270 GEOARCHAEOLOGY

Societies in the past depended on our human ancestors' ability to interact with their environment. Geoarchaeology analyzes these interactions by combining archaeological and geological techniques to document human behavior while also reconstructing the past environment. Course meets twice weekly for lecture, discussion of readings and hands on exercises. Prerequisite: One course in anthropology, archaeology or geology. (Not Offered 2014-2015)

GEOL B298 APPLIED ENVIRONMENTAL SCIENCE SEMINAR

This project-oriented seminar aims to foster student skills in research, analysis and synthesis of information in the interdisciplinary field of applied environmental science, with a specific focus on renewable energy. Students will conduct research on alternative energy options that could potentially be implemented at Bryn Mawr. Prerequisites: Advanced standing (Junior/Seniors) and co-enrollment in CHEM B206. (Not Offered 2014-2015)

GEOL B299 GEOLOGY FIELD SHORT COURSE

P. Marenco

Geology majors choosing to participate in the annual Fall- or Spring-Break Geology Department Field Trip must enroll in GEOL B299. Enrollment in this class does not guarantee a spot on the field trip. Several pre-trip class meetings help maximize student engagement on the trip by providing a forum for discussing the assigned readings. During the weeklong field trip, students are exposed to geologic field methods while visiting sites that exemplify different

geology from that at sites near campus. Geologic methods introduced include proper field note-taking, mapping and measuring geologic structures, and interpreting geologic history. Culminating work introduces students to geologic illustration and report writing. A passing grade requires full participation and engagement by the student before, during and after the field trip. At least one post-trip meeting is held on campus to synthesize the material covered, and to go over students' final reports. Prerequisites: GEOL B101, B102 or B103; and GEOL B202, B203, B204 or B205.

GEOL B301 HIGH-TEMPERATURE GEOCHEMISTRY

Principles and theory of various aspects of geochemistry in rock systems, focusing on applications of chemistry to the study of igneous and metamorphic rocks. Three hours of lecture per week. Prerequisites: GEOL B202, CHEM B103 and B104 or consent of the instructor. (Not Offered 2014-2015)

GEOL B302 LOW-TEMPERATURE GEOCHEMISTRY

P. Marenco

Stable isotope geochemistry is one of the most important subfields of the Earth sciences for understanding environmental and climatic change. In this course, we will explore stable isotopic fundamentals and applications including a number of important case studies from the recent and deep time dealing with important biotic events in the fossil record and major climate changes. Prerequisites: GEOL 101 or GEOL 102, and at least one semester of chemistry or physics, or professor approval.

GEOL B304 TECTONICS

Plate tectonics and continental orogeny are reviewed in light of the geologic record in selected mountain ranges and certain geophysical data. Three hours of lecture and a problem session a week. Prerequisite: GEOL 204 or permission of instructor. (Not Offered 2014-2015)

GEOL B305 IGNEOUS AND METAMORPHIC PETROLOGY

The origin, mode of occurrence, and distribution of igneous and metamorphic rocks. The focus is on the experimental and field evidence for interpreting rock associations and the interplay between igneous and metamorphic rock genesis and tectonics. Three lecture hours weekly. Occasional weekend field trips. Prerequisite: GEOL 202. (Not Offered 2014-2015)

GEOL B310 INTRODUCTION TO GEOPHYSICS

An overview covering how geophysical observations of the Earth's magnetic field, gravity field, heat flow, radioactivity, and seismic waves provide a means to study plate tectonics. Also covered are the geophysical techniques used in mineral and energy resources exploration, and in the monitoring of groundwater, earthquakes and volcanoes. Three class hours a week. (Not Offered 2014-2015)

GEOL B314 MARINE GEOLOGY

D. Barber

An introduction to oceanography, coastal processes, and the geomorphology of temperate and tropical shorelines. Includes an overview of the many parameters, including sea level change, that shape coastal environments. Meets twice weekly for a combination of lecture, discussion and hands-on exercises, including a mandatory multiday field trip to investigate developed and pristine sections of the Mid-Atlantic US coast. Prerequisites: One 200-level GEOL course OR one GEOL course AND one BIOL course (any level), OR advanced BIOL major standing (junior or senior).

GEOL B328 ANALYSIS OF GEOSPATIAL DATA USING GIS

Analysis of geospatial data, theory, and the practice of geospatial reasoning. Crosslisted as CITY-B328; BIOL-B328; ARCH-B328. (Not Offered 2014-2015)

GEOL B350 ADVANCED TOPICS IN GEOLOGY

A. Weil

This is a topics course. Course content varies. Recent topics include Carbonate Petrology, Appalachian Geology, Advanced Evolution, The Snowball Controversy, and Climate Change.
Fall 2014 topic: This seminar style course explores the geologic record of the Appalachian Orogen-from development of the eastern Laurentia Precambrian margin to opening of the Atlantic Ocean and development of the modern physiography. Students delve into the evidence for the opening and closing of several major oceans, and the implications of major tectonic events on the Earth surface system. Readings are from primary literature with student discussion leaders responsible for assigned text.

GEOL B399 SENIOR CAPSTONE SEMINAR

S. Cull

A capstone seminar course required for all Geology majors. All Geology seniors will be required to participate in this two-semester seminar that meets weekly for 1.5 hours for a total of 1.0 credit (0.5 credits per semester). Enrollment required in two half-credit courses, one in the fall and one in the spring semester of the senior year. The focus of the seminar will be to integrate the student's major curriculum into open peer-led discussions on cutting edge research in the many diverse fields of Geology, to discuss the impact and relevance of Geology to modern society, and to work on oral and written communication skills. (Fall 2014, Spring 2015)

GEOL B403 SUPERVISED RESEARCH

At the discretion of the department faculty, rising seniors may undertake an independent thesis project in addition to mandatory full participation in the senior capstone seminar. This student thesis is conducted under the supervision of a faculty advisor(s). The undertaking of a thesis is modeled after a Master's thesis project, which is scaled down for the different time frame (one year versus two years) and educational level of a senior undergraduate student. The thesis project plan is initially developed, and agreed upon by conference between the supervising faculty member(s) and the student. Most of the research is conducted independently by the student. The advisor serves as a source of ideas concerning scientific literature, methodologies, and financial support. The advisor may visit and inspect the research sites, laboratory or model, and offer advice on how the research should be conducted or modified.

GERMAN AND GERMAN STUDIES (BI-CO)

brynmawr.edu/german

The Department of German and German Studies draws upon the expertise of the German faculty at both Bryn Mawr and Haverford colleges to offer a broadly conceived German studies program, incorporating a variety of courses and major options.

The purpose of the major in German is to lay the foundation for a critical understanding of German culture in its contemporary international context and its larger political, social, and intellectual history. To this end, we encourage:

- a thorough and comparative study of the German language and culture through its linguistic and literary history, systems of thought, institutions, political configurations, and arts and sciences.
- by means of various methodological approaches to the study of another language, critical thinking, expository writing skills, understanding of the diversity of culture(s), and the ability to respond creatively to the challenges posed by cultural difference in an increasingly multicultural world.

Course offerings serve both students with particular interests in German literature, literary theory and criticism and those interested in studying German and German-speaking cultures from the perspective of communication arts, film, history, history of ideas, history of art and architecture, history of religion, institutions, linguistics, mass media, philosophy, politics, urban anthropology, and folklore.

Majors choose either in a literature concentration or in a German studies concentration, and thorough knowledge of German is a common goal for both concentrations. The objective of our language instruction is to teach students communicative skills that would enable them to function effectively in authentic conditions of language use and to speak and write in idiomatic German. Major components of all German courses are the examination of issues that underline the cosmopolitanism as well as the specificity and complexity of contemporary German culture.

We encourage many German majors to take courses in interdisciplinary areas, such as comparative literature, history, political science, philosophy, music, and feminist and gender studies, where they read works of criticism in these areas in the original German.

CURRICULUM

MAJOR REQUIREMENTS

The German major consists of 10 units. All courses at the 200 or 300 level count toward the major requirements, either in a literature concentration or in a German studies concentration.

A literature concentration normally follows the sequence 201 and/or 202; 214, 215; 223 and/or 224; plus additional courses to complete the ten units, two of them at the 300 level; and finally one semester of Senior Conference.

A German studies major normally includes 201 and/or 202, 223 and/or 224; one 200 and one 300 level course in German literature; three courses (at least one should be a 300 level course) in subjects central to aspects of German culture, history, or politics; and one semester of German 321 (Advanced Topics in German Cultural Studies), and finally one semester of Senior Conference.

Within each concentration, courses need be selected so as to achieve a reasonable breadth, but also a degree of disciplinary coherence.

MINOR REQUIREMENTS

A minor in German and German studies consists of six units of work. To earn a minor, students are normally required to take German 201 or

202, four additional units covering a reasonable range of study topics, of which at least one unit is at the 300 level. Students may take the one remaining upper-level course either within the German program, or with the approval of the department from the recommended electives for German studies majors.

STUDY ABROAD

We encourage students majoring in German to spend time in German-speaking countries in the course of their undergraduate studies. Possibilities include summer work programs, DAAD (German Academic Exchange) scholarships for summer courses at German universities, and selected junior year abroad programs (Berlin, Freiburg, Vienna).

We also encourage students to take advantage of the many opportunities on both campuses for immersion programs in German language and culture: residence in Haffner Hall foreign language apartments at Bryn Mawr; the German Film Series; the German Lecture Series; and the weekly Stammtisch and more informal conversational groups, which faculty members attend.

REQUIREMENTS FOR HONORS

Any student whose grade point average in the major at the end of the senior year is 3.8 or above qualifies by grade point average alone for departmental honors. Students whose major grade point average at the end of the senior year is 3.6 or better, but not 3.8, are eligible for departmental honors.

FACULTY

AT HAVERFORD:

Ulrich Schönherr
Co-Chair and Associate Professor of German and Comparative Literature

Imke Brust
Assistant Professor of German

AT BRYN MAWR:

Azade Seyhan
Fairbank Professor in the Humanities and Professor of German and Comparative Literature

David Kenosian
Lecturer

AFFILIATED FACULTY AT HAVERFORD:

Jerry Miller
Associate Professor of Philosophy

Richard Freedman
John C. Whitehead Professor of Music

AFFILIATED FACULTYAT BRYN MAWR:

Robert J. Dostal
Rufus M. Jones Professor of Philosophy

Carol J. Hager
Associate Professor of Political Science

Lisa Saltzman
Associate Professor of History of Art

COURSES

001 ELEMENTARY GERMAN

Brook Henkel
Meets five hours a week with the individual class instructor, one hour with student drill instructors. Strong emphasis on communicative competence both in spoken and written German in a larger cultural context. This is a year-long course; both semesters (001 and 002) are required for credit.

002 ELEMENTARY GERMAN

101 INTERMEDIATE GERMAN

Ulrich Schoenherr
Meets three hours a week with the individual class instructor, one hour with student drill instructor. Thorough review of grammar, exercises in composition and conversation. Enforcement of correct grammatical patterns and idiomatic use of language. Study of selected literary and cultural texts and films from German-speaking countries. Two semesters.

102 INTERMEDIATE GERMAN

Ulrich Schoenherr
Meets three hours a week with the individual class instructor, one hour with student drill instructor. Thorough review of grammar, exercises in composition, and conversation. Enforcement of correct grammatical patterns and idiomatic use of language. Study of selected literary and cultural texts and films from German-speaking countries. Two semesters.

201 ADVANCED TRAINING: LANGUAGE, TEXT, AND CONTEXT

Ulrich Schoenherr

This course is intended for students who wish to refine their speaking, writing, and reading skills beyond the Intermediate level. Designed as a comprehensive introduction to modern German culture, we discuss a variety of literary, political, historical and philosophical texts, including feature films and video materials. Weekly grammar reviews will complement these activities.

215 SURVEY OF LITERATURE IN GERMAN

Brook Henkel

262 EUROPEAN FILM

Brook Henkel

Beginning with key works of European cinema and the historical avant-garde from the 1920s and 30s (Lang, Vertov, Renoir), this class will go on to explore the post-World War II developments of Italian Neorealism, the French New Wave, and New German Cinema (alongside examples of British and Scandinavian film) up to more recent works like those of Lars von Trier and the Berlin School. Throughout the semester, we will challenge such national identifications of European films (imposed largely by critics and the international film-market) and instead stress their shared concerns with history, politics, social transformation, and formal experimentation. We will also discuss the considerable (if contentious) overlaps between European art cinema and Hollywood films. Screenings are paired with relevant, primary and secondary film-historical texts as well as key readings in film theory. Films shown with subtitles; readings and discussions in English.

320A CONTEMPORARY GERMAN FICTION

Ulrich Schoenherr

Full Topic Title: "Sex-Crime-Madness: The Birth of Modern Literature and the Aesthetics of Transgression" (in German)

The emancipation from rule-bound poetics, didactic, and moral constraints led to a redefinition of literature around 1800, for which the classic/classicist triad of the true, the good, and the beautiful was no longer valid. The successful separation from extra-aesthetic determinants opened up new representational possibilities, in which the "beautiful" became boring and the "ugly" became interesting. Focusing on major literary figures from Goethe to Jelinek, the seminar examines the "paradigm shift" towards a modern aesthetics of transgression in which social, racial, and sexual deviancy take center stage.

320B CONTEMPORARY GERMAN FICTION

Brook Henkel

Full Topic Title: "Impossible Representations: The Holocaust in Literature and Film"

Representing the Holocaust has often been posed as a limit or impossibility within the literary and visual arts. Despite such statements, we find numerous instances of artists turning to literature, film, and other aesthetic media in order to recall, confront, and grapple with the atrocities committed by Germans and Austrianse during the Nazi period. How do we understand such "impossible representations," their different, rrepresentational strategies, as well as their ethical, political, and historical status? Covering an international range of literary texts and films along with examples from the visual arts, this seminar investigates works that attempt to represent the traumatic experiences, historical events, and lasting consequences of the Holocaust through various genres and perspectives.

321 TOPICS IN GERM LITERATURE

Ulrich Schoenherr

Full Topic Title: "Literature and New Media: From the Gutenberg- Galaxy to Cyberspace"

The emergence of new acoustic, visual, and electronic media since the late 19th century has dramatically changed the status of writing, textuality, and literature. Focusing on modernist as well as contemporary texts, the seminar reconstructs the changing intermedial relationship between the book and its technologically advanced "other" from the print-based medium to the latest digital "Hypertext" novel. The challenges posed by photography, phonography, radio, film, and electronic media prompted writers to rethink and redefine their declining position vis-à-vis the new technologies that have successfully dethroned the book as the primary storage system of modern society. Oscillating between critical resistance and enthusiastic adaptation, the seminar examines the various responses and strategies of literature in the age of its technological obsolescence. Excerpts from historical and contemporary theories of media (Benjamin, McLuhan, Baudrillard, Kittler et.al.) provide the conceptual framework for the

analysis of literary models. Readings will include texts (and films) by Villiers de l'Isle-Adam, F. Lang, Brecht, Th. Mann, M. Duras, A. Resnais, Cortazar, M. Antonioni, F. Truffaut, Delillo, Beyer, L. Riefenstahl, G. Perec, and Geoff Ryman.

399 SENIOR CONFERENCE
Ulrich Schoenherr

480 INDEPENDENT STUDY
Imke Brust

COURSES OFFERED AT BRYN MAWR

FALL
001 ELEMENTARY GERMAN

101 INTERMEDIATE GERMAN

213 THEORY IN PRACTICE: HUMANITIES

225 CENSORSHIP

403 SUPERVISED WORK

421 GERMAN FOR READING KNOWLEDGE

SPRING
002 ELEMENTARY GERMAN

102 INTERMEDIATE GERMAN

202 INTRODUCTION TO GERMAN STUDIES

245 APPROACHES TO GERM LITERATURE AND CULTURE

321 ADVANCED TOPICS GERMAN CULTURAL STUDIES: EXILE IN TRANSLATION

399 SENIOR SEMINAR

GROWTH AND STRUCTURE OF CITIES AT BRYN MAWR COLLEGE

brynmawr.edu/cities

The interdisciplinary Growth and Structure of Cities major challenges students to understand the dynamic relationships connecting urban spatial organization and the built environment with politics, economics, cultures, and societies worldwide. Core introductory classes present analytic approaches that explore changing forms of the city over time and analyze the variety of ways through which women and men have re-created global urban life across history and across cultures. With these foundations, students pursue their interests through classes in architecture, urban social and economic relations, urban history, studies of planning, and the environmental conditions of urban life. Opportunities for internships, volunteering, and study abroad also enrich the major. Advanced seminars further ground the course of study by focusing on specific cities and topics.

CURRICULUM

Students may complete a major or minor in Growth and Structure of Cities. Complementing the major, students may complete a minor in Environmental Studies, or a concentration in Latin American, Latino, and Iberian Peoples and Cultures. Students also may enter the 3-2 Program in City and Regional Planning, offered in cooperation with the University of Pennsylvania.

CITIES MAJOR REQUIREMENTS

A minimum of 15 courses (11 courses in Cities and four allied courses in other related fields) is required to complete the major. Two introductory courses (185, 190) balance sociocultural and formal approaches to urban form and the built environment, and introduce cross-cultural and historical comparison of urban development. The introductory sequence should be completed with a broader architectural survey course (253, 254, 255) and a second social science course that entails extended analysis and writing (229). These courses should be completed as early as possible in the first and second years; at least two of them must be taken by the end of the first semester of the sophomore year.

Writing across multiple disciplines is central to the major, drawing on sources as varied as architectural and visual studies, ethnographic fieldwork, archival and textual study, theoretical reflection, and policy engagement. Students begin to write and receive commentary on their arguments and expression from their introductory classes through their required capstone thesis. While most courses in the major have important writing components, at the moment City 229 acts as our primary writing-intensive course, asking students to draw upon the breadth of their interests to focus on researching, writing, and rewriting within a comparative framework. We expand our pedagogy in this area over time in conjunction with college initiatives and student feedback. At the same time, students are encouraged to use other classes within the major to develop a range of skills in methods, theory, and presentations, oral and written.

In addition to these introductory courses, each student selects six elective courses within the Cities Department, including cross-listed courses. At least two must be at the 300 level. In the senior year, a capstone course is required of all majors. Most students join together in a research seminar, CITY 398, in the Fall of that year. Occasionally, however, after consultation with the major advisers, the student may elect another 300-level course or a program for independent research. This is often the case with double majors who write a thesis in another field.

Finally, each student must also identify four courses outside Cities that represent additional expertise to complement her work in the major. These may include courses such as physics and calculus for architects, additional courses in economics, political science, sociology, or anthropology for students more focused on the social sciences and planning, or courses that build on language, design, or regional interests. Any minor, concentration, or second major also fulfills this requirement. Cities courses that are cross-listed with other departments or originate in them can be counted only once in the course selection, although they may be either allied or elective courses.

Both the Cities Department electives and the four or more allied courses must be chosen in close consultation with the major advisers in order to create a strongly coherent sequence and focus. This is especially true for students interested in architectural design, who needs to arrange studio courses (226, 228) as well as accompanying courses in math, science and architectural history; they should contact the department chair or Daniela Voith in their first year. Likewise, students interested in pursuing a minor in Environmental Studies should consult with Ellen Stroud early in their career, and those interested in pursuing a concentration in Iberian, Latin American, and Latino/a themes or in Global Asian Studies should consult with Gary McDonogh.

Students should note that many courses in the department as well as cross-listed courses are not given every year. They should also note that courses may carry prerequisites in cities, art history, economics, history, sociology, or the natural sciences.

We encourage study abroad or study off campus, within the limits of the Bryn Mawr and Haverford rules and practices. In general, a one-semester program is strongly preferred. The Cities Department regularly works with off-campus and study-abroad programs that are strong in architectural history, planning, and design, as well as those that allow students to pursue social and cultural interests. Students who would like to spend part or all of their junior year away must consult with the major advisers and appropriate deans early in their sophomore year.

Cities majors have created major plans that have allowed them to coordinate their interests in cities with architecture, planning, ethnography, history, law, environmental studies, mass media, social justice, medicine, public health, the fine arts, and other fields. No matter the focus, though, each Cities major must develop a solid foundation in both the history of architecture and urban form and the analysis of urban culture, experience, and policy. Careful methodological choices, clear analytical writing, and critical visual analysis constitute primary emphases of the major. Strong interaction with faculty and other students are an important and productive part of the Cities Department, which helps us all take advantage of the major's flexibility in an organized and rigorous way.

CITIES MINOR REQUIREMENTS

Students who wish to minor in the Cities Department must take at least two out of the four required courses and four cities electives, including two at the 300 level. Senior Seminar is not mandatory for fulfilling the cities minor.

3/2 PROGRAM IN CITY AND REGIONAL PLANNING

Over the past two decades, many Cities majors have entered the 3/2 Program in City and Regional Planning, offered in conjunction with The University of Pennsylvania. Students interested in this program should meet with faculty early in their sophomore year.

FACULTY

Jeffrey A. Cohen
Term Professor in Growth and Structure of Cities (on leave fall semester)

David Consiglio
Instructor

Carola Hein
Professor of Growth and Structure of Cities

Jennifer Hurley
Instructor in Growth and Structure of Cities

Gary W. McDonogh
Professor of Growth and Structure of Cities and the Helen Herrmann Chair

Liv Raddatz
Instructor in Growth and Structure of Cities

Victoria Reyes
Lecturer in Growth and Structure of Cities

Anooradha Iyer Siddiqi
Lecturer in Growth and Structure of Cities

Ellen Stroud
Associate Professor of Growth and Structure of Cities on the Johanna Alderfer Harris and William H. Harris, M.D. Professorship in Environmental Studies

Daniela Holt Voith
Senior Lecturer in Growth and Structure of Cities

COURSES

CITY B103 EARTH SYSTEM SCIENCE AND THE ENVIRONMENT

K. Marenco, D. Barber
This integrated approach to studying the Earth focuses on interactions among geology, oceanography, and biology. Also discussed are the consequences of population growth, industrial development, and human land use. Two lectures and one afternoon of laboratory or fieldwork per week. A required two-day (Fri.-Sat.) field trip is taken in April.

CITY B104 ARCHAEOLOGY OF AGRICULTURAL AND URBAN REVOLUTIONS

This course examines the archaeology of the two most fundamental changes that have occurred in human society in the last 12,000 years, agriculture and urbanism, and we explore these in Egypt and the Near East as far as India. We also explore those societies that did not experience these changes.

CITY B136 WORKING WITH ECONOMIC DATA

Applies selected principles of economics to the quantitative analysis of economic data; uses spreadsheets and other tools to collect and judge the reliability of economic data. Topics may include measures of income inequality and poverty; unemployment, national income and other measures of economic well-being; cost-benefit of public and private investments; construction of price indices and other government statistics; evaluating economic forecasts; and the economics of personal finance.

CITY B185 URBAN CULTURE AND SOCIETY

G. McDonogh
Examines techniques and questions of the social sciences as tools for studying historical and contemporary cities. Topics include political-economic organization, conflict and social differentiation (class, ethnicity, and gender), and cultural production and representation. Philadelphia features prominently in discussion, reading and exploration as do global metropolitan comparisons through papers involving fieldwork, critical reading, and planning/problem solving using qualitative and quantitative methods.

CITY B190 THE FORM OF THE CITY: URBAN FORM FROM ANTIQUITY TO THE PRESENT

J. Cohen, A. Siddiqi
This course studies the city as a three-dimensional artifact. A variety of factors—geography, economic and population structure, politics, planning, and aesthetics—are considered as determinants of urban form.

CITY B200 URBAN SOCIOLOGY

This course consists of an overview, as well as an analysis of the physical and social structure of the city. The first part of the course deals with understanding exactly what a city consists of. The second part focuses on the social structure within cities. Finally, in the third part of the course, we examine patterns of inequality and segregation in the city. Prerequisite: One social science course or permission of instructor.

CITY B201 INTRODUCTION TO GIS FOR SOCIAL AND ENVIRONMENTAL ANALYSIS

This course is designed to introduce the foundations of GIS with emphasis on applications for social and environmental analysis. It deals with basic principles of GIS and its use in spatial analysis and information management. Ultimately, students design and carry out research projects on topics of their own choosing.

CITY B203 ANCIENT GREEK CITIES AND SANCTUARIES

E. Tasopoulou
A study of the development of the Greek city-states and sanctuaries. Archaeological evidence is surveyed in its historic context. The political formation of the city-state and the role of

religion is presented, and the political, economic, and religious institutions of the city-states are explored in their urban settings. The city-state is considered as a particular political economy of the Mediterranean and in comparison to the utility of the concept of city-state in other cultures.

CITY B204 ECONOMICS OF LOCAL ENVIRONMENTAL PROGRAMS

D. Ross

Considers the determinants of human impact on the environment at the neighborhood or community level and policy responses available to local government. How can economics help solve and learn from the problems facing rural and suburban communities? The instructor was a local township supervisor who shares the day-to-day challenges of coping with land use planning, waste disposal, dispute resolution, and the provision of basis services. Prerequisite: ECON B105.

CITY B205 SOCIAL INEQUALITY

Introduction to the major sociological theories of gender, racial-ethnic, and class inequality with emphasis on the relationships among these forms of stratification in the contemporary United States, including the role of the upper class(es) and inequality between and within families, in the workplace, and in the educational system.

CITY B206 INTRODUCTION TO ECONOMETRICS

R. Stahnke

An introduction to econometric terminology and reasoning. Topics include descriptive statistics, probability, and statistical inference. Particular emphasis is placed on regression analysis and on the use of data to address economic issues. The required computational techniques are developed as part of the course. Prerequisites: ECON B105 or H101, and H102, and a 200-level elective.

CITY B207 TOPICS IN URBAN STUDIES

A mid-level course that explores how we understand and write about architecture and architectural history, based on the analysis of visual materials, close reading of texts, and visits to actual sites.

CITY B210 NATURAL HAZARDS

A quantitative approach to understanding the earth processes that impact human societies. We consider the past, current, and future hazards presented by geologic processes, including earthquakes, volcanoes, landslides, floods, and hurricanes. The course includes discussion of the social, economic, and policy contexts within which natural geologic processes become hazards. Case studies are drawn from contemporary and ancient societies. Lecture three hours a week. Prerequisite: One semester of college science or permission of instructor.

CITY B212 MEDIEVAL ARCHITECTURE

This course takes a broad geographic and chronological scope, allowing for full exposure to the rich variety of objects and monuments that fall under the rubric of "medieval" art and architecture. We focus on the Latin and Byzantine Christian traditions, but also consider works of art and architecture from the Islamic and Jewish spheres. Topics to be discussed include: the role of religion in artistic development and expression; secular traditions of medieval art and culture; facture and materiality in the art of the middle ages; the use of objects and monuments to convey political power and social prestige; gender dynamics in medieval visual culture; and the contribution of medieval art and architecture to later artistic traditions.

CITY B213 TAMING THE MODERN CORPORATION

D. Ross

Introduction to the economics of industrial organization and regulation, focusing on policy options for ensuring that corporations enhance economic welfare and the quality of life. Topics include firm behavior in imperfectly competitive markets; theoretical bases of antitrust laws; regulation of product and occupational safety; environmental pollution; and truth in advertising. Prerequisite: ECON B105.

CITY B214 PUBLIC FINANCE

Analysis of government's role in resource allocation, emphasizing effects of tax and expenditure programs on income distribution and economic efficiency. Topics include sources of inefficiency in markets and possible government responses; federal budget composition; social insurance and antipoverty programs; U.S. tax structure and incidence. Prerequisite: ECON B105.

CITY B215 URBAN ECONOMICS

Micro- and macroeconomic theory applied to urban economic behavior. Topics include housing and land use; transportation; urban labor markets;

urbanization; and demand for and financing of urban services. Prerequisite: ECON B105.

CITY B216 THE CITY OF NAPLES

The city of Naples emerged during the Later Middle Ages as the capital of a Kingdom and one of the most influential cities in the Mediterranean region. What led to the city's rise, and what effect did the city as a cultural, political, and economic force have on the rest of the region and beyond? This course will familiarize students with the art, architecture, culture, and institutions that made the city one of the most influential in Europe and the Mediterranean region during the Late Middle Ages. Topics include court painters in service to the crown, female monastic spaces and patronage, and the revival of dynastic tomb sculpture.

CITY B217 RESEARCH METHODS AND THEORIES

V. Reyes

This course provides the student with the basic skills to design and implement a research project. The emphasis is on the process (and choices) of constructing a research project and on "learning by doing." The course encompasses both quantitative and qualitative techniques and examines the strengths and weaknesses of each strategy. By the end of the semester students will have learned the basics for planning and executing research on a topic of their choice.

CITY B218 TOPICS IN WORLD CITIES

This is a topics course. Course content varies. An introduction to contemporary issues related to the urban environment.

CITY B220 COMPARATIVE SOCIAL MOVEMENTS IN LATIN AMERICA

An examination of resistance movements to the power of the state and globalization in three Latin American societies: Mexico, Columbia, and Peru. The course explores the political, legal, and socio-economic factors underlying contemporary struggles for human and social rights, and the role of race, ethnicity, and coloniality play in these struggles.

CITY B222 ENVIRONMENTAL ISSUES: MOVEMENTS AND POLICY MAKING IN COMPARATIVE PERSPECTIVE

C. Hager

An exploration of the ways in which different cultural, economic, and political settings have shaped issue emergence and policy making. We examine the politics of particular environmental issues in selected countries and regions, paying special attention to the impact of environmental movements. We also assess the prospects for international cooperation in addressing global environmental problems such as climate change.

CITY B225 ECONOMIC DEVELOPMENT

M. Rock, C. Dominguez

Examination of the issues related to and the policies designed to promote economic development in the developing economies of Africa, Asia, Latin America, and the Middle East. Focus is on why some developing economies grow faster than others and why some growth paths are more equitable, poverty reducing, and environmentally sustainable than others. Includes consideration of the impact of international trade and investment policy, macroeconomic policies (exchange rate, monetary and fiscal policy) and sector policies (industry, agriculture, education, population, and environment) on development outcomes in a wide range of political and institutional contexts. Prerequisite: ECON B105.

CITY B226 INTRODUCTION TO ARCHITECTURAL DESIGN

D. Voith, S. Olshin

This studio design course introduces the principles of architectural design. Suggested Preparation: drawing, some history of architecture, and permission of instructor.

CITY B227 TOPICS IN MODERN PLANNING

A. Siddiqi

This is a topics course. Course content varies. **Spring 2015 topic:** Through studies of human rights, governmental and nongovernmental practice, armed conflict, and urban and political activism, we will examine how architecture colludes with or resists social ordering systems, asking two questions of contemporary and historical examples. How has political activism intervened spatially, visually, and materially upon societies and cultures? How have spatial politics configured modes of resistance?

CITY B228 PROBLEMS IN ARCHITECTURAL DESIGN

D. Voith, S. Olshin

A continuation of CITY 226 at a more advanced level. Prerequisite: CITY B226 or permission of instructor.

CITY B229 TOPICS IN COMPARATIVE URBANISM

G. McDonogh

This is a topics course. Course content varies. **Spring 2015 topic:** Probing the relations of power at the heart of power and society in many cities worldwide, this class uses case studies to test urban theory, forms and practice. In order to grapple with colonialism and its aftermaths, we focus on cities in North Africa (and France), Northern Ireland, Hong Kong and Cuba, systematically exploring research, writing and insights from systematic interdisciplinary comparisons. Current topic description: Probing the relations of power at the heart of power and society in many cities worldwide, this class uses case studies to test urban theory, forms and practice. In order to grapple with colonialism and its aftermaths, we ill focus on cities in North Africa (and France), Northern Ireland, Hong Kong, and Cuba, systematically exploring research, writing and insights from systematic interdisciplinary comparisons.

CITY B231 PUNISHMENT AND SOCIAL ORDER

A cross-cultural examination of punishment, from mass incarceration in the United States, to a widened "penal net" in Europe, and the securitization of society in Latin America. The course addresses theoretical approaches to crime control and the emergence of a punitive state connected with pervasive social inequality.

CITY B234 ENVIRONMENTAL ECONOMICS

Introduction to the use of economic analysis explain the underlying behavioral causes of environmental and natural resource problems and to evaluate policy responses to them. Topics may include air and water pollution; the economic theory of externalities, public goods and the depletion of resources; cost-benefit analysis; valuing non-market benefits and costs; economic justice; and sustainable development. Prerequisite: ECON B105.

CITY B237 THEMES IN MODERN AFRICAN HISTORY

K. Ngalamulume

The course examines the cultural, environmental, economic, political, and social factors that contributed to the expansion and transformation of pre-industrial cities, colonial cities, and cities today. We will examine various themes, such as the relationship between cities and societies; migration and social change; urban space, health problems, city life, and women.

Fall 2014 topic: A seminar exploring indigenous societies and cultures of the Americas through interdisciplinary scholarship. The course's aim is to explore the evolution of several indigenous societies and cultures in order to frame Native peoples as actors on historical playing fields that were as rich, complex, and subject to change as those that the European intruders and their descendants later occupied.

CITY B238 THE ECONOMICS OF GLOBALIZATION

An introduction to international economics through theory, policy issues, and problems. The course surveys international trade and finance, as well as topics in international economics. It investigates why and what a nation trades, the consequences of such trade, the role of trade policy, the behavior and effects of exchange rates, and the macroeconomic implications of trade and capital flows. Topics may include the economics of free trade areas, world financial crises, outsourcing, immigration, and foreign investment. Prerequisite: ECON B105. The course is not open to students who have taken ECON B316 or B348.

CITY B241 BUILDING GREEN: SUSTAINABLE DESIGN PAST AND PRESENT

At a time when more than half of the human population lives in cities, the design of the built environment is of key importance. This course is designed for students to investigate issues of sustainability in architecture. A close reading of texts and careful analysis of buildings and cities will help us understand the terms and practices of architectural design and the importance of ecological, economic, political, cultural, social sustainability over time and through space.

CITY B242 URBAN FIELD RESEARCH METHODS

This Praxis course intends to provide students with hands-on research practice in field methods. In collaboration with the instructor and the Praxis Office, students choose an organization or other group activity in which they will conduct participant observation for several weeks. Through this practice, students learn how to conduct field-based primary research and analyze sociological issues.

CITY B243 ECONOMIC INEQUALITY AND GOVERNMENT POLICY CHOICES

This course examines the U.S. economy and

the effects of government policy choices. The class will focus on the potential trade-offs between economic efficiency and greater economic equality. Some of the issues include tax, education, and health care policies. Different perspectives on issues will be examined. Prerequisite: ECON B105.

CITY B244 GREAT EMPIRES OF THE ANCIENT NEAR EAST

A survey of the history, material culture, political and religious ideologies of, and interactions among, the five great empires of the ancient Near East of the second and first millennia B.C.E.: New Kingdom Egypt, the Hittite Empire in Anatolia, the Assyrian and Babylonian Empires in Mesopotamia, and the Persian Empire in Iran.

CITY B247 TOPICS IN GERMAN CULTURAL STUDIES

This is a topics course. Topics vary.

CITY B249 ASIAN AMERICAN COMMUNITIES

This course is an introduction to the study of Asian American communities that provides comparative analysis of major social issues confronting Asian Americans. Encompassing the varied experiences of Asian Americans and Asians in the Americas, the course examines a broad range of topics—community, migration, race and ethnicity, and identities—as well as what it means to be Asian American and what that teaches us about American society.

CITY B250 TOPICS: GROWTH AND SPATIAL ORGANIZATION OF THE CITY

An introduction to growth and spatial organization of cities. Topics vary.

CITY B253 SURVEY OF WESTERN ARCHITECTURE

D. Cast

The major traditions in Western architecture are illustrated through detailed analysis of selected examples from classical antiquity to the present. The evolution of architectural design and building technology, and the larger intellectual, aesthetic, and social context in which this evolution occurred, are considered.

CITY B254 HISTORY OF MODERN ARCHITECTURE

A. Siddiqi

A survey of the development of modern architecture since the 18th century. The course focuses on international networks in the transmission of architectural ideas since 1890.

CITY B255 SURVEY OF AMERICAN ARCHITECTURE

An examination of landmarks, patterns, contexts, architectural decision-makers and motives of various players in the creation of the American built environment over the course of four centuries. The course will address the sequence of examples that comprise the master narrative of the traditional survey course, while also casting a questioning eye, probing the relation of this canon to the wider realms of building in the United States.

CITY B259 DAILY LIFE IN ANCIENT GREECE AND ROME

The often-praised achievements of the classical cultures arose from the realities of day-to-day life. This course surveys the rich body of material and textual evidence pertaining to how ancient Greeks and Romans -- famous and obscure alike -- lived and died. Topics include housing, food, clothing, work, leisure, and family and social life.

CITY B260 SHOW AND SPECTACLE IN ANCIENT GREECE AND ROME

A survey of public entertainment in the ancient world, including theater and dramatic festivals, athletic competitions, games and gladiatorial combats, and processions and sacrifices. Drawing on literary sources and paying attention to art, archaeology and topography, this course explores the social, political and religious contexts of ancient spectacle. Special consideration will be given to modern equivalents of staged entertainment and the representation of ancient spectacle in contemporary film.

CITY B262 URBAN ECOSYSTEMS

J. Caplan

Cities can be considered ecosystems whose functions are highly influenced by human activity. This course will address many of the living and non-living components of urban ecosystems, as well as their unique processes. Using an approach focused on case studies, the course will explore the ecological and environmental problems that arise from urbanization, and also examine solutions that have been attempted. Prerequisite: BIOL B110 or B111 or ENVS B101.

CITY B266 SCHOOLS IN AMERICAN CITIES

J. Cohen

This course examines issues, challenges, and possibilities of urban education in contemporary America. We use as critical lenses issues of race,

class, and culture; urban learners, teachers, and school systems; and restructuring and reform. While we look at urban education nationally over several decades, we use Philadelphia as a focal "case" that students investigate through documents and school placements. This is a Praxis II course (weekly fieldwork in a school required)

CITY B267 HISTORY OF PHILADELPHIA: 1682 TO PRESENT

This course focuses on the intersection of the sense of Philadelphia as it is popularly understood and the Philadelphia that we can reconstruct individually and together using scholarly books and articles, documentary and popular films and novels, visual evidence, and visits to the chief repositories of the city's history. We analyze the relationship between the official representations of Philadelphia and their sources and we create our own history of the city.

CITY B268 GREEK AND ROMAN ARCHITECTURE

A survey of Greek and Roman architecture taking into account building materials, construction techniques, various forms of architecture in their urban and religious settings from an historical and social perspective.

CITY B269 BLACK AMERICA IN SOCIOLOGICAL PERSPECTIVE

R. Washington

This course provides sociological perspectives on various issues affecting black America: the legacy of slavery; the formation of urban ghettos; the struggle for civil rights; the continuing significance of discrimination; the problems of crime and criminal justice; educational under-performance; entrepreneurial and business activities; the social roles of black intellectuals, athletes, entertainers, and creative artists.

CITY B278 AMERICAN ENVIRONMENTAL HISTORY

E. Stroud

This course explores major themes of American environmental history, examining changes in the American landscape, the history of ideas about nature and the interaction between the two. Students will study definitions of nature, environment, and environmental history while investigating interactions between Americans and their physical worlds.

CITY B279 CITIES AND THE HUMAN DIMENSIONS OF GLOBAL ENVIRONMENTAL CHANGE

In this course, we focus on the human dimensions of global environmental change, especially as it relates to urban sustainability. While sustainability has often narrowly been viewed in environmental terms, we will analyze social and environmental justice as integral components of urban sustainability.

CITY B286 TOPICS IN THE BRITISH EMPIRE

This is a topics course covering various "topics" in the study of the British Empire. Course content varies.

CITY B298 TOPICS: ADVANCED RESEARCH METHODS

This is a topics course. Course content varies.

CITY B304 DISASTER, WAR AND REBUILDING IN THE JAPANESE CITY

Natural and man-made disasters have destroyed Japanese cities regularly. Rebuilding generally ensued at a very rapid pace, often as a continuation of the past. Following a brief examination of literature on disaster and rebuilding and a historical overview of architectural and urban history in Japan, this course explores the reasons for historical transformations large and small. It specifically argues that rebuilding was mostly the result of traditions, whereas transformation of urban space occurred primarily as a result of political and socio-economic change. Focusing on the period since the Meiji restoration of 1868, we ask: How did reconstruction after natural and man-made disasters shape the contemporary Japanese landscape? We will explore specifically the destruction and rebuilding after the 1891 Nobi earthquake, the 1923 Great Kanto earthquake that leveled Tokyo and Yokohama, the bombing of more than 200 cities in World War II and their rebuilding, as well as the 1995 Great Hanshin earthquake that destroyed Kobe and its reconstruction. In the context of the long history of destruction and rebuilding we will finally explore the recent disaster in Fukushima 2011. Through the story of disaster and rebuilding emerge different approaches to permanence and change, to urban livability, the environment and sustainability.

CITY B305 TOPICS IN ANCIENT ATHENS

E. Tasopoulou

This is a topics course. Course content varies.

CITY B306 ADVANCED FIELDWORK TECHNIQUES: PLACES IN TIME

J. Cohen

A workshop for research into the histories of places, intended to bring students into contact with some of the raw materials of architectural and urban history. A focus will be placed on historical images and texts, and on creating engaging informational experiences that are transparent to their evidentiary basis.

CITY B312 TOPICS IN MEDIEVAL ART

A. Walker

This is a topics course. Course content varies. **Spring 2015 topic:** This course explores a range of theoretical models that have been brought to bear on the study of Byzantine objects in recent years, including thing theory, portability, the social life of things, material culture studies, entanglement, and gift theory.

CITY B314 THE ECONOMICS OF SOCIAL POLICY

Introduces students to the economic rationale behind government programs and the evaluation of government programs. Topics include health insurance, social security, unemployment and disability insurance, and education. Additionally, the instructor and students will jointly select topics of special interest to the class. Emphasis will be placed on the use of statistics to evaluate social policy. Prerequisites: ECON 200; ECON 253 or 304.

CITY B315 SPACES OF IDENTITY: ARCHITECTURE AND PLANNING IN HAMBURG

Many European cities feature a shared range of architectural and urban forms that reflect histories as long as a millennium and that are the product of related sets of political, economic, social, cultural, and religious forces. This course will examine such operative factors and patterns through the particular case of the Northern German city-state of Hamburg from its medieval origins to the contemporary waterfront renewal of the HafenCity.

CITY B316 TRADE AND TRANSPORT IN THE ANCIENT WORLD

P. Magee

Issues of trade, commerce and production of export goods are addressed with regard to the Bronze Age and Iron Age cultures of Mesopotamia, Arabia, Iran and south Asia. Crucial to these systems is the development of means of transport via maritime routes and on land. Archaeological evidence for traded goods and shipwrecks is used to map the emergence of sea-faring across the Indian Ocean and Gulf while bio-archaeological data is employed to examine the transformative role that Bactrian and Dromedary camels played in ancient trade and transport.

CITY B318 TOPICS IN URBAN SOCIAL AND CULTURAL THEORY

This is a topics course. Course content varies. Prerequisites: Completion of introductory sequence in Cities (esp. 185, 217/229) or equivalent work or permission of instructor.

CITY B319 ADVANCED TOPICS IN GERMAN CULTURAL STUDIES

A. Seyhan

This is a topics course. Course content varies. **Spring 2015 topic:** In the condition of exile, the writers, whose works were banned or censored in their own countries, cannot pursue their craft, unless their works are translated, either by professional translators or by themselves. Many writers who are in exile in Germany today write directly in German as a form of self-translation. This course will examine how works of diverse cultures survive in German translation and contribute to German culture. Crosslisted with GERM B321.

CITY B321 TECHNOLOGY AND POLITICS

A multimedia analysis of the complex role of technology in political and social life. We focus on the relationship between technological change and democratic governance. We begin with historical and contemporary Luddism as well as pro-technology movements around the world. Substantive issue areas include security and surveillance, electoral politics, warfare, social media, internet freedom, GMO foods and industrial agriculture, climate change and energy politics.

CITY B323 TOPICS IN RENAISSANCE ART

C. Hertel,C.

This is a topics course. Course content varies. **Spring 2015 topic:** This course explores the origins of the museum by attending to early modern practices of collecting and displaying art and artifacts, with particular attention to the

"Kunstkammer" or curiosity cabinet, collections of art, books, prints, small scientific instruments, and so-called "marvels" of art and nature, both European and colonial, including rocks and ore, shells and even stuffed animals.

CITY B324 ECONOMICS OF DISCRIMINATION AND INEQUALITY

Explores the causes and consequences of discrimination and inequality in economic markets. Topics include economic theories of discrimination and inequality, evidence of contemporary race- and gender-based inequality, detecting discrimination, and identifying sources of racial and gender inequality. Additionally, the instructor and students will jointly select supplementary topics of specific interest to the class. Possible topics include: discrimination in historical markets, disparity in legal treatments, issues of family structure, and education gaps. Prerequisites: At least one 200-level applied microeconomics elective, Economics 203 or 204, and Economics 200 or 202.

CITY B328 ANALYSIS OF GEOSPATIAL DATA USING GIS

Analysis of geospatial data, theory, and the practice of geospatial reasoning.

CITY B329 ADVANCED TOPICS IN URBAN ENVIRONMENTS

E. Stroud

This is a topics course. Course content varies.
Spring 2015topic: Many important sites in American cities are illegible to those who do not already know their significance. In this seminar, we will be learning to read, interpret, and document such landscapes of power, loss, violence, connection, division, and celebration.

CITY B330 ARCH AND IDENTITY IN ITALY

How is architecture used to shape our understanding of past and current identities? This course looks at the ways in which architecture has been understood to represent, and used to shape regional, national, ethnic, and gender identities in Italy from the Renaissance to the present. The class focuses on Italy's classical traditions, and looks at the ways in which architects and theorists have accepted or rejected the peninsula's classical roots. Subjects studied include Baroque Architecture, the Risorgimento, Futurism, Fascism, and colonialism. Course readings include Vitruvius, Leon Battista Alberti, Giorgio Vasari, Jacob Burckhardt, and Alois Riegl, among others.

CITY B335 TOPICS IN CITY AND MEDIA

This is a topics course. Course content varies.

CITY B336 EAST ASIAN DEVELOPMENT

M. Rock

Identifies the core economic and political elements of an East Asian newly industrializing economies (NIEs) development model. Assesses the performance of this development model in Northeast (Korea and Taiwan) and Southeast Asia (Indonesia, Malaysia and Thailand) in a comparative perspective. Considers the debate over the impact of interventionist and selective development policies associated with this model on the development successes and failures of the East Asian NIEs. Prerequisites: ECON 200 or 202; and ECON 253 or 304; or permission of instructor.

CITY B345 ADVANCED TOPICS IN ENVIRONMENT AND SOCIETY

This is a topics course. Topics vary.

CITY B348 CULTURE AND ETHNIC CONFLICT

An examination of the role of culture in the origin, escalation, and settlement of ethnic conflicts. This course examines the politics of culture and how it constrains and offers opportunities for ethnic conflict and cooperation. The role of narratives, rituals, and symbols is emphasized in examining political contestation over cultural representations and expressions such as parades, holy sites, public dress, museums, monuments, and language in culturally framed ethnic conflicts from all regions of the world. Prerequisites: Two courses in the social sciences.

CITY B355 TOPICS IN THE HISTORY OF LONDON

D. Cast

Selected topics of social, literary, and architectural concern in the history of London, emphasizing London since the 18th century.

CITY B360 TOPICS: URBAN CULTURE AND SOCIETY

V. Reyes, L. Raddatz

This is a topics course. Course content varies.
Fall 2014, Spring 2015 topic: This course introduces students to urban labor markets in the post-industrial economy in the North American and Western European context. We will examine how broader economic, political and demographic trends have affected urban

labor markets on both sides of the Atlantic and examine selected labor market policies and institutions. Focusing on the role of social ties and information, we seek to understand how people find (or fail to find) jobs. We will critically engage with the work of scholars from a variety of disciplines including sociology, geography, anthropology and economics to understand why inequalities exist between labor markets in different cities but also why there are inequalities within urban labor markets, particularly along gender, racial and ethnic lines. We seek to not only identify key reasons for these labor market inequalities but also develop a better understanding of the everyday life experiences of these marginalized groups. Throughout the course we will frequently adopt a geographic perspective and pay particular attention to aspects of space, place and scale in our study of urban labor markets. Current topic description: This course is a social scientific examination of various types of borderlands - spaces of cross-national and cross-cultural exchange - around the world. We will explore the social, cultural, political, and geographic processes and interactions that occur within these spaces. Specific types of borderlands explored in the course may include geo-political borders, bordertowns, suburbs, frontiers, divided cities, and global borderlands.

CITY B365 TOPICS: TECHNIQUES OF THE CITY

This is a topics course. Course content varies. Prerequisite: Student must have taken at least one social science course.

CITY B377 TOPICS IN MODERN ARCHITECTURE

A. Siddiqi

This is a topics course on modern architecture. Topics vary.

Fall 2014, Spring 2015 topic: This course explores methods of researching visual and built artifacts through analytical observation, archival study of related documents, and thick description. Alternating each session between the study of a plan and section, we will investigate their relation to as-built architecture or other material culture, and critically consider their registry within institutions and informal spaces related to the historic record. Current topic description: This course examines historical change in the period from World War II to the present through the concepts of mobility and territory. In shared readings on architectural and urban issues, we will examine territorial remapping, human displacement, and the emergence of new technologies to address this reorganization of space and human life. Independent student projects will probe themes of sovereignty and citizenship, cosmopolitanism and difference.

CITY B378 FORMATIVE LANDSCAPES: THE ARCHITECTURE AND PLANNING OF AMERICAN COLLEGIATE CAMPUSES

The campus and buildings familiar to us here at the College reflect a long and rich design conversation regarding communicative form, architectural innovation, and orchestrated planning. This course will explore that conversation through varied examples, key models, and shaping conceptions over time.

CITY B398 SENIOR SEMINAR

G. McDonogh, E. Stroud, A. Siddiqi

An intensive research seminar designed to guide students in writing a senior thesis.
Units: 1.0
Instructor(s):

CITY B403 INDEPENDENT STUDY

CITY B415 TEACHING ASSISTANT

J. Cohen, G. McDonogh

An exploration of course planning, pedagogy and creative thinking as students work to help others understand pathways they have already explored in introductory and writing classes. This opportunity is available only to advanced students of highest standing by professorial invitation.

CITY B425 PRAXIS III: INDEPENDENT STUDY

Praxis III courses are Independent Study courses and are developed by individual students, in collaboration with faculty and field supervisors. A Praxis courses is distinguished by genuine collaboration with fieldsite organizations and by a dynamic process of reflection that incorporates lessons learned in the field into the classroom setting and applies theoretical understanding gained through classroom study to work done in the broader community.

CITY B450 URBAN INTERNSHIPS/PRAXIS

Individual opportunities to engage in praxis in the greater Philadelphia area; internships must be arranged prior to registration for the semester in which the internship is taken. Prerequisite: Permission of instructor.

HEALTH STUDIES MINOR

haverford.edu/healthstudies

Haverford and Bryn Mawr offer an interdisciplinary minor in Bi-College (Bi-Co) Health Studies (HS), involving departments and faculty on both campuses from the social and natural sciences and the humanities. The Bi-Co HS minor (haverford.edu/healthstudies) brings together students and faculty to explore:

- the cultural, literary, visual, and ethical representations of health and illness
- the familial, social, civic and governmental systems that structure risks to disease and access to health care
- the biological, chemical and psychological mechanisms of disease and the maintenance of health.

Students may complete an HS minor in conjunction with any major at Haverford, Bryn Mawr, or Swarthmore, pending approval of the student's coursework plan by the home department and the home-campus HS director.

The Bi-Co HS minor aims to:

- create a coherent curricular structure in which students address issues of health and disease informed by multidisciplinary investigations, combining insights from the natural sciences, social sciences, and humanities.
- develop a student's ability to think and write with depth, precision, and sophistication about complex topics on health, disease, and social justice.
- teach students how to collaborate with others, having varying skill sets and vocabularies, on issues pertaining to health and disease, so they can work in partnership with diverse stakeholders to contribute to the well-being of local communities and global populations.

The minor began in the spring of 2014, and the Class of 2016 is our first to take advantage of this unique program. The minor is a perfect complement to a more traditional science major, especially for students planning to go into medicine, nursing, physical therapy, psychotherapy, and other clinical fields. However, it is also designed to give scientific context to students of the social sciences and humanities who are interested in policy, economics, health care management, health education, medical narratives, and more.

To declare the minor, students should contact the Health Studies director, Professor Kaye Edwards (kedwards@haverford.edu) at (610) 896-1191. For additional information about the minor, including an updated list of affiliated faculty and approved electives, visit the HS website (haverford.edu/healthstudies).

CURRICULUM

Medical, dental, osteopathic, veterinary, nursing, public health, and other schools look for applicants who have demonstrated academic aptitude in a rigorous undergraduate curriculum. Although a pre-health student does not have to choose a science major in order to enter the health professions, he or she does have to demonstrate mastery of the material covered in prerequisite science courses and take coursework in the social sciences and statistics.

HEALTH STUDIES MINOR REQUIREMENTS

The B-Co HS minor consists of six courses, which include:

1. A required introductory course (HLTH 115), offered in the spring semester, to be taken prior to the senior year.

2. Three elective core course credits from a list approved by the faculty steering committee. Students must elect two of these courses from a department outside of the student's major, and at least two of these courses should be at the non-introductory level. Students must take one course in each of three tracks:

- M track: mechanisms of disease and the maintenance of the healthy body
- R track: cultural, literary, visual and ethical representations of health and illness
- S track: responses of familial, social, civic and governmental structures to issues of health and disease.

See the HS website for lists of approved core courses in the three tracks.

3. One additional course, outside the student's major. Students may choose either a core course or one selected from a list of approved affiliate courses, which deal with health issues, but not necessarily as their primary focus. (See the HS website [haverford.edu/healthstudies] for lists of approved affiliate courses.)

4. A senior capstone seminar, organized around a single theme, which varies each year. Potential themes could be a particular health intervention (e.g., vaccinations), a specific disease (e.g., diabetes), or a specific population (e.g., Native Americans). Students analyze current literature addressing the theme from their own disciplinary perspectives and develop research proposals and collaborative projects.

FACULTY

AT HAVERFORD:

Kaye Edwards
Independent College Programs, Health Studies Director

Richard Ball
Economics

Kimberly Benston
English

Susan Benston
English

Frances Blase
Chemistry

Louise Charkoudian
Chemistry

Rebecca Compton
Psychology

Robert Fairman
Biology

Andrew Friedman
History

Seth Gillihan
Psychology

Michael Grider
Biology

Darin Hayton
History

Matthew Kavanagh
Political Science

Mary Ellen Kelly
Psychology

Kristin Lindgren
Writing Program

Lisa McCormick
Sociology

Zolani Ngwane
Anthropology

Justine Melo
Biology

Philip Meneely
Biology

Weiwen Miao
Mathematics and Statistics

Zachary Oberfield
Political Science

Judith Owen
Biology

Iruka Okeke
Biology

Christopher Roebuck
Anthropology

Carol Schilling
Independent College Programs

Sarah Shuman
Independent College Programs

Terry Snyder
Librarian of the College

Jill Stauffer
Peace, Justice and Human Rights

Michele Taylor
Independent College Programs

Thomas Wadden
Psychology

Shu-wen Wang
Psychology

AFFILIATED FACULTY AT BRYN MAWR:
Melissa Pashigian
Anthropology, Health Studies Advisor

Peter Brodfuehrer
Biology

Karen Greif
Biology

Toba Kerson
Social Work and Social Research

Alice Lesnick
Education

Rudy Le Menthéour
French

Sara Nath
Social Work and Social Research

Amy Neeren
Psychology

Kalala Ngalamulume
History

Jessica Payson
Philosophy

Alexis Rosenfeld
Psychology

Leslie Rescorla
Psychology

Jason Schmink
Chemistry

Maja šelšelj
Anthropology

Cindy Sousa
Social Work and Social Research

Earl Thomas
Psychology

Robert Wozniak
Psychology

Sharon Ullman
History

COURSES

115 INTRODUCTION TO HEALTH STUDIES

Christopher Roebuck, Kaye Edwards
The multidisciplinary foundation for the health studies minor. Students are introduced to theories and methods from the life sciences, social sciences, and humanities and will learn to apply them to problems of health and illness. Topics include epidemiological, public health, and biomedical perspectives on health and disease; social, behavioral, and environmental determinants of health; globalization of health issues; cultural representations of illness; health inequalities, social justice, and the ethics of health as a human right.

121 POISONS AND PLAGUES

Justin A. Melo
This class focuses on the various nodes of intersection between poisons—in nature and man-made—and the history of human misery. We review the catastrophic effects on human physiology of the plagues that have cycled through our population every few decades, often decimating our numbers as a species. We also discuss the modes of poisoning contrived of our own making, such as the Gulf of Mexico oil spill of 2010 and subsequent mop-up effort. We envisage future scenarios in which our species will have to face the action of poisons & plagues, and the various defense strategies our bodies (and our technology) will deploy in hopes of survival.

200 ANTHROPOLOGY OF AIDS

Christopher Roebuck
This course provides a theoretical foundation for cultural analyses and responses to HIV & AIDS. Topics include the history of HIV & AIDS and their epidemiological trends; medical and public health responses in various (inter)national settings; structural factors shaping vulnerability and access to prevention and treatment; local and global AIDS activisms; social stigma, discrimination, and criminalization; discourses of human rights, humanitarianism, and citizenship; and representations of risk, sickness, and care.

207 DISABILITY, IDENTITY, AND CULTURE

Kristin Anne Lindgren

An exploration of representations of illness and disability in literature, culture, and visual art. Course units focus on identity theory and identity politics, portraiture, ethical storytelling, bioethical dilemmas, and intersections with race, gender, and sexuality, and class.

223 MENTAL AFFLICTION

Sue Benston

260 HEALTH AND HEALING

Christopher Roebuck

Are our bodies, ourselves lively artifacts? How do social, cultural and political forces shape health, illness and survival as well as understandings and experiences of "the body"? This introductory course in medical anthropology approaches these questions by examining ethnographic studies and cross-comparative analyses. Topics include diverse concepts of disease etiology and healing practice; theories of embodiment and somatization; ethnomedicine, medical pluralism, and (bio)medicalization; structural violence, inequalities, and social suffering; political and moral economies of global health and medical humanitarianism; HIV/AIDS and other infectious diseases; and effects of new medical technologies on how "we" live and die.

281 VIOLENCE AND PUBLICE HEALTH

Kaye Edwards

An interdisciplinary seminar course analyzing the advantages and limitations of a public health perspective on violence. We will examine how every-day violence, direct political violence, and structural violence effect public health, as well as evidence that violence is preventable and amenable to public health strategies.

308 IMMUNOLOGY

Judith Anne Owen

This course provides an introduction to the rapidly expanding discipline of immunology. Students learn about the molecular and cellular basis of the immune response through the study of the genetics and biochemistry of antigen receptors, the biochemistry of immune cell activation, the cell physiology of the immune system, immune memory, immune tolerance induction, and immune-mediated cell death.

311 REPRODUCTIVE HEALTH AND JUSTICE

Christopher Roebuck, Kaye Edwards

Seminar analyzing disparities in reproductive health outcomes, access to sexual health care, and protections of reproductive rights within Nicaragua and the United States.

327 OBESITY EPIDEMIC

Thomas Wadden

An examination of the causes and consequences of obesity at individual and societal levels. Focuses on mechanisms of body weight regulation along with the wide-scale changes in diet, eating habits, and physical activity that have contributed to the obesity epidemic.

HEBREW & JUDAIC STUDIES AT BRYN MAWR COLLEGE

brynmawr.edu/hebrew

Modern Hebrew language instruction is available at Bryn Mawr through the intermediate level; Swarthmore College offers biblical Hebrew in a two-semester sequence through the first-year level, and additional reading in Classical Jewish texts is available in directed reading, one-half-credit courses. At Haverford, Judaic Studies courses are offered by the Department of Religion. Bryn Mawr also offers several courses that complement Haverford's offerings in Judaic Studies. All of these courses are listed in the Tri-Co Course Guide under the heading "Hebrew and Judaic Studies."

COLLEGE FOREIGN LANGUAGE REQUIREMENT

Before the start of the senior year, each student must complete, with a grade of 2.0 or higher, two units of foreign language. Students may fulfill the requirement by completing two sequential semester-long courses in one language, beginning at the level determined by their language placement. A student who is prepared for advanced work may complete the requirement instead with two advanced free-standing semester-long courses in the foreign language(s) in which she is proficient.

FACULTY

Penny Armstrong
Chair and Eunice M. Schenck 1907 Professor of French and Director of Middle Eastern Languages

COURSES

HEBR B001 ELEMENTARY HEBREW

This year-long course prepares students for reading Modern Hebrew literary works as well as classical religious texts. It provides students with the knowledge of the Hebrew letters, its diacritical system, grammar, and syntax. It equips them with the skills of reading, writing, and conversing in Modern Hebrew and increases their vocabulary. To achieve these goals the course utilizes a variety of means: textbooks, supplementary printed material, Hebrew poems, and songs as well as Hebrew video dramatizations.

HEBR B002 ELEMENTARY HEBREW

This yearlong course prepares students for reading Modern Hebrew literary works as well as classical religious texts. It provides students with the knowledge of the Hebrew letters, its diacritical system, grammar, and syntax. It equips them with the skills of reading, writing, and conversing in Modern Hebrew and increases their vocabulary. To achieve these goals the course utilizes a variety of means: textbooks, supplementary printed material, Hebrew poems, and songs as well as Hebrew video dramatizations.

HEBR B101 INTERMEDIATE HEBREW

The course is designed for students who took the Elementary Hebrew course in Bryn Mawr or its equivalents in other institutions, assuming basic fluency in reading, writing, grammar, syntax, and conversation in Hebrew. It expands the knowledge of the above, while emphasizing reading, writing, and class discussions of modern literary works as well as some classical religious texts. It integrates textbooks' material with Hebrew videos and films, short stories, and songs. We encourage students who feel qualified to take this course, but have not taken Elementary Hebrew at Bryn Mawr, to discuss it with the instructor. This is a yearlong course.

HEBR B102 INTERMEDIATE HEBREW

The course is designed for students who took the Elementary Hebrew course in Bryn Mawr or its equivalents in other institutions, assuming basic fluency in reading, writing, grammar, syntax, and conversation in Hebrew. It expands the knowledge of the above, while emphasizing reading, writing, and class discussions of modern literary works as well as some classical

religious texts. It integrates textbooks' material with Hebrew videos and films, short stories, and songs. We encourage students who feel qualified to take this course, but have not taken Elementary Hebrew at Bryn Mawr, to discuss it with the instructor. This is a yearlong course.

HEBR B115 WOMEN IN JUDAISM: HISTORY, TEXTS, PRACTICES

This course investigates the varied experiences of women in Jewish history. We engage cultural, religious, and theoretical perspectives as we seek to illuminate the roles, practices, and texts of Jewish women, from the biblical matriarchs to Hasidic teenagers today. No previous knowledge of Judaism is required.

HEBR B211 PRIMO LEVI, THE HOLOCAUST AND ITS AFTERMATH

A consideration, through analysis, and appreciation of his major works, of how the horrific experience of the Holocaust awakened in Primo Levi a growing awareness of his Jewish heritage and led him to become one of the dominant voices of that tragic historical event, as well as one of the most original new literary figures of post-World War II Italy. Always in relation to Levi and his works, we also give attention to other Italian women writers whose works are also connected with the Holocaust.

HEBR B271 TOPICS IN JUDAIC STUDIES

What happened in Jewish history between antiquity and the modern era, between composing the Talmud and receiving citizenship in European nations? As we try to understand how Jews got from there to here, this seminar explores the diverse and sometimes astonishing forms of Jewish life in the medieval and early modern periods (approximately 1000–1800), with special focus on the evolution of Jewish relations with the majority culture. Topics include the golden age of Jewry in Muslim Spain, the development of European anti-Jewish policies and persecutions, Jewish self-government, and cosmopolitanism, as well as many of the philosophers, mystics and would-be messiahs who sparked religious movements and change in the course of these tumultuous centuries.

HEBR B283 INTRODUCTION TO THE POLITICS OF THE MODERN MIDDLE EAST AND NORTH AFRICA

This course is a multidisciplinary approach to understanding the politics of the region, using works of history, political science, political economy, film, and fiction as well as primary sources. The course concerns itself with three broad areas: the legacy of colonialism and the importance of international forces; the role of Islam in politics; and the political and social effects of particular economic conditions, policies, and practices.

HEBR B403 SUPERVISED WORK

HISTORY

haverford.edu/history

The study of history involves the critical analysis of the past. The curriculum in history is designed to encourage the development of reflective habits of mind by balancing emphasis on primary source materials with the study of important secondary works. The department welcomes comparative studies and seeks to relate its courses to the broadest possible spectrum of academic disciplines. In this connection, the history major is easily integrated into the African and Africana Studies, East Asian Studies, Education and Educational Studies, Gender and Sexuality Studies, Latin American and Iberian Studies areas of concentration. The department has no specific language requirement, but students who wish to major in history are encouraged to pursue foreign languages to enable advanced research in seminars and theses.

The history departments of Haverford and Bryn Mawr have coordinated their course offerings. All courses offered by both departments are open to students of both colleges equally, subject only to the prerequisites stated by individual instructors. Both departments encourage students to avail themselves of the breadth of offerings this arrangement makes possible at both colleges.

CURRICULUM

All of our 100-level courses are open to all students without prerequisite. Courses numbered 200-299 are open to sophomores, juniors, and seniors; exceptions require the prior consent of the instructor. Courses numbered 300 and above are normally open only to juniors and seniors.

MAJOR

All majors must take two semesters of introductory coursework, with the freedom to mix and match as desired. While the classes cover different materials, they all train students how to read primary texts and use them as evidence to build persuasive arguments of their own. These classes set the stage for more advanced coursework that invites students to reevaluate familiar assumptions while exploring new sources and arguments.

HISTORY MAJOR REQUIREMENTS

1. Two semesters of 100 level work from the following array of courses, in any combination:
History 111a and b (Introduction to Western Civilization)
History 114 (Origins of the Global South)
History 115 (Postcards from the Atlantic World)
History 117 (Modern Mediterranean History)
History 118 (Introduction to the History of Science)
History 119 (International History of the United States)
History 120 (Chinese Perspectives on the Individual and Society)

2. Seven electives above the 100 level, at least two of which must be at the 300 (seminar) level. At least one of these seminars should be taken by the second semester of the junior year. All majors must complete three of the designated six fields. A student must take two courses above the 100 level within a field to complete each field requirement. The history department currently offers six fields:

- United States history
- Early European history, pre-1763
- Modern European history
- Latin American history
- East Asian history
- History of Science and Medicine

Students may design a field to reflect their personal interests based on courses offered at Bryn Mawr (such as British Colonial, Atlantic World, or African History) or that addresses specific approaches or themes (such as imperialism; the trans-Atlantic world; comparative, religious, or women's history; or history of the African diaspora). A student may take only two fields in the same geographic region where such a distinction is relevant.

3. The senior thesis.
All History majors write a senior thesis. The centerpiece of the history major is History 400, the "Senior Thesis Seminar," a year-long course designed to guide senior majors through the researching, drafting and revision of a substantial piece of original writing. As such,

this seminar offers seniors the opportunity to devise an independent research project, in close consultation with their faculty advisor, and to practice the craft of historical writing.
History 400 combines the best aspects of a reading seminar and an independent study. Over the course of the year, the history faculty and the senior majors meet as a class and move through the steps of choosing a topic, identifying a set of primary materials (such as personal papers, literary works or public documents), defining an argument and drafting an article-length essay. At the same time, each major has individual tutorials with his or her advisor throughout the year.

Under this combined group and individual faculty supervision, students pursue topics of their choice, inspired by prior classes and personal interests. The jointly networked libraries of Haverford, Bryn Mawr, and Swarthmore offer a vast array of published and unpublished sources to kindle the imagination. One of the exciting features of History 400, however, is that seniors may also take advantage of the remarkable rich historical resources in the wider Philadelphia area. A variety of holdings from the Historical Society of Pennsylvania, the Library Company, the American Philosophical Society, and the University of Pennsylvania Archives—all premier repositories—will satisfy a broad range of interests.

SENIOR THESIS

There are two options for completing the thesis:

- to take History 400a and History 400b in the senior year, with the work of the first semester emphasizing the identification, location, and transcribing of sources, and the second semester focusing on writing (synthesis, argument, and eloquence.)
- to take History 400a in the fall, to complete writing the thesis by the end of that semester to complete the requirements for the major. (This option is sometimes especially useful for double-majors also writing a thesis for another department.)

Past senior theses testify to the imaginative and varied topics in this course. Recent theses explored the Spanish Inquisition in 17th-century Mexico, the 1968 Chicago Seven trial, waterfront culture in colonial Philadelphia, 19th-century medical missionaries in China, and iconic imagery of Queen Elizabeth I.

REQUIREMENTS FOR HONORS

The department grants honors in history to those senior majors who have combined excellent performance in history courses with an excellent overall record. Faculty considers work of honors quality to require grade of 3.7 or above in a history course. We may award high Honors to students showing unusual distinction in meeting these criteria.

FACULTY

Bethel Saler
Chair and Associate Professor

Linda G. Gerstein
Professor

Paul Jakov Smith
John R. Coleman Professor of Social Sciences

James Krippner
Professor

Lisa Jane Graham
Frank A. Kafker Associate Professor

Alexander Kitroeff
Associate Professor

Darin Hayton
Assistant Professor

Andrew Friedman
Assistant Professor

COURSES

111 INTRODUCTION TO WESTERN CIVILIZATION

Linda Gerstein

The fall-semester course is a survey of Western Civilization from the fall of Rome to the sixteenth century. It focuses on the institutional and intellectual dimensions of the western tradition, by closely interrogating both primary sources and secondary accounts. The second semester of this course (which may be taken independent of the first semester) picks up at the beginning of the sixteenth century and goes to the present. It explores the development of the modern European world.

117 MODERN MEDITERRANEAN HISTORY

Alexander Kitroeff

This course examines the ways the countries & peoples of the Mediterranean region—Southern Europe, North Africa, and the Middle East—responded the main events & trends in the 19th–20th century: The French revolution, the industrial revolution, nationalism, imperialism, fascism, the two World Wars, the Cold War, anti-colonialism. The Mediterranean lies between Europe, Africa, and Asia geographically but also in a normative sense, representing a region whose historical trajectory echoed that of the developed West but also the colonized, less developed East. Its study, therefore, enables students to understand the main historical trends in the modern era on a global scale.

118 HISTORY OF SCIENCE

Darin Hayton

Although science is an essential characteristic of the modern world, it took nearly 4,000 years to attain that status. This course surveys various sciences in the past focusing on both how and why humans have interrogated the natural world, how they have categorized the resulting knowledge, and what uses they have made of it. Topics can include science and medicine in antiquity, Islamic sciences, Byzantine and medieval sciences, early-modern science, and the Scientific Revolution.

119 INTERNATIONAL HISTORY OF THE UNITED STATES

Andrew Friedman

This course surveys the international history of the United States in the 20th century. It encourages students to conceptualize U.S. history as a series of transnational encounters and systems that transcend national borders. Capitalism, the environment, postcolonialism and Third Worldism, "Atlantic crossings," modernity, imperialism, diaspora and migration, world war, travel, United Nations, and "Our America" serve as organizing motifs. In considering the history of this country outside its formal borders, students gain a facility with the languages of hemispheric and global imagining that structure the pursuit of contemporary U.S. history, while sharpening analytical skills working with primary texts.

120 CHINESE PERSPECTIVES ON THE INDIVIDUAL AND SOCIETY

Paul Jakov Smith

A survey of philosophical, literary, legal, and autobiographical sources on Chinese notions of the individual in traditional and modern China. Particular emphasis is on identifying how ideal and actual relationships between the individual and society vary across class and gender and over time. Special attention is paid to the early 20th century, when Western ideas about the individual begin to penetrate Chinese literature and political discourse.

200 METHODS AND APPROACES IN EAST ASIAN STUDIES

Paul Jakov Smith

This course introduces current and prospective majors to the scope and methods of East Asian Studies. It employs readings on East Asian history and culture as a platform in critical analysis, bibliography, cartography, and the formulation of research topics and approaches. It culminates in a substantial research essay.

216 SOCIAL JUSTICE TRADITIONS

Andrew Cornell

A historical study of the civil rights, antiwar, counter-culture, and feminist initiatives of the 1960s. This course explores how progressive and radical activists adjusted their theories and strategies after the '60s as the country became more conservative in the 1970s and 1980s. Making use of movement documents, documentary films, and a variety of other sources, the course traces the development of LGBTQ, ecological, and economic justice initiatives up to the present day.

223 OLD AGE IN THE MODERN AGE

Terry Snyder

Drawing on illness memoirs, literary fiction, case histories, and essays in neuroscience, physics, and philosophy of mind, this course explores how far the vehicle of language can transport us into turbulent mental landscapes without itself breaking down. The syllabus features selections from numerous authors such as Nancy Andreasen, John Barth, Samuel Beckett, Jorge Luis Borges, Robert Coover, Antonio Damasio, Daniel Dennett, Julie Holland, Clarice Lispector, Vladimir Nabokov, Thomas Nagel, Steven Pinker, Fernando Pessoa, Elyn Saks, Lawrence Shainberg, Max Tegmark, and Lu Xun.

240 HISTORY AND PRINCIPLES OFQUAKERISM

Emma Lapsansky

The development of Quakerism and its relationship to other religious movements and to political and social life, especially in America. The roots of the Society of Friends in 17th-century Britain, and the expansion of Quaker influences among Third World populations, particularly the Native American, Hispanic, east African, and Asian populations.

244 RUSSIA, 1800–1917

Linda Gerstein

Topics include the culture of serfdom, Westernization, reforms, modernization, national identities, and Revolution.

253 HISTORY OF THE U.S., 1870 TO THE PRESENT

Andrew Friedman

256 ZEN THOUGHT, ZEN CULTURE, ZEN HISTORY

Hank Glassman

What are we talking about when we talk about Zen? This course is an introduction to the intellectual and cultural history of the style of Buddhism known as Zen in Japanese. We examine the development and expression of this religious movement in China, Korea, Japan and Vietnam.

263 CHINESE REVOLUTION

Paul Jakov Smith

Places the causes and consequences of the Communist Revolution of 1949 in historical perspective, by examining its late-imperial antecedents and tracing how the revolution has (and has not) transformed China, including the lives of such key revolutionary supporters as the peasantry, women, and intellectuals.

347 QUAKERS IN EAST ASIA

Paul Jakov Smith

The principal goal of this research seminar is to explore Haverford's rich Quaker archive as a source of first-hand information about East Asia from the late 19th through the mid-20th century. We collectively survey the major documentary holdings, supplemented by material in the American Friends Service Committee archives, as a prelude to your individual research projects on aspects of the Friends' educational, social, medical, and evangelical missions in China and Japan and what they tell us about East-West relations in an era of imperialism and war.

348 WALTER BENJAMIN: LANCASTER AVENUE

Andrew Friedman

This course mixes a readings seminar in the work of the German-Jewish philosopher and critical theorist Walter Benjamin with an inquiry into the history of American modernity, using Benjamin of the Philadelphia and Lancaster, PA. It culminates in a collective project of digital scholarship, based in semester-long student-faculty collaboration in archival research on Lancaster Avenue.

350 TOPICS IN HISTORY AND SCIENCE

Darin Hayton

Seminar meetings, reports, and research paper. Past topics include "Universities and Science in Early Modern Europe."

357 TOPICS IN EUROPEAN HISTORY

Alexander Kitroeff

This course examines nationalism in three interrelated domains: the way it informed the emergence of modern nation-states in Europe; the major theoretical debates this historical experience generated; and the ways nationalism was disseminated through public performance. We cover France, Germany, Ireland, Italy, Spain, and the United Kingdom. The first includes readings on the ways nationalism was at the core of the historical evolution of Britain and Italy and also how the French state, after the emergence of the modern nation-state inculcated national identity into its citizens. The second domain considers several key theoretical debates about the nature of nationalism. These include the contrast between "civic" and "cultural" types of nationalism which we examine against the experiences of France and Germany, the issue of nationalism as a construct for which

we will read Anderson's now classic study, and the concept of "national-self determination" which we investigate in the context of the Paris Peace conference of 1919. The third domain entails studying nationalism as a cultural practice through public performance. We look at France's self presentation at a world fair, the Irish tradition of public parades and the clash between the portrayal of Spanish and Catalan identities at the Barcelona Olympics in 1992.

400 SENIOR THESIS SEMINAR
Andrew Friedman, Darin Hayton, Alexander Kitroeff
History 400 is designed to expose students to different historical methods and guide them through the conceptualization of a topic, the research, and the writing of a thesis proposal.

COURSES OFFERED AT BRYN MAWR

FALL

102 INTRODUCTION TO AFRICAN CIVILIZATIONS

129 RELIGIOUS CONQUEST OF THE AMERICAS

131 CHINESE CIVILIZATION

205 GREEK HISTORY

218 REPRESENTATIONS OF WORLD WAR I

224 HIGH MIDDLE AGES

234 INTRODUCTION TO THE MIDDLE EAST

237 THEMES IN MODERN AFRICAN HISTORY: AFRICAN CITIES, HISTORICAL PERSPECTIVES

275 IMPROVING MANKIND

284 MOVIES AND AMERICA

303 TOPICS IN AMERICAN HISTORY: HISTORY OF MEDICINE IN AMERICA

319 TOPICS IN MODERN EUROPEAN HISTORY: HISTORY OF PSYCHOANALYSIS

326 TOPICS IN CHINESE HISTORY AND CULTURE: LEGAL CULTURE IN CHINESE HISTORY

327 TOPICS IN EARLY AMERICAN HISTORY: INDIGENOUS PEOPLES

336 TOPICS IN AFRICAN HISTORY: HISTORY OF DISEASE AND MEDICINE

355 HISTORY OF LONDON SINCE THE 18TH CENTURY
368 TOPICS IN MEDIEVAL HISTORY: SEX, GENDER, AND THE MEDIEVAL BODY

398 SENIOR THESIS

403 SUPERVISED WORK

SPRING

200 THE ATLANTIC WORLD, 1492–1800

207HELLENISTIC/ROMAN REPUBLIC HISTORY

236 AFRICAN HISTORY SINCE 1800

278 AMERICAN ENVIRONMENTAL HISTORY

283 MODERN MIDDLE EAST AND NORTH AFRICA

110 TOPICS IN MEDIEVAL ART: BYZANTINE OBJECTS

323 MEMORIA Y GUERRA CIVIL

250 TOPICS IN SOCIAL HISTORY

337 TOPICS IN AFRICAN HISTORY: WITCHCRAFT IDEOLOGY

347 MEDIEVALISMS

378 ORIGINS OF AMERICAN CONSTITUTIONALISM

395 EXPLORING HISTORY

HISTORY OF ART AT BRYN MAWR COLLEGE

brynmawr.edu/hart

The curriculum in History of Art immerses students in the study of visual culture. Structured by a set of evolving disciplinary concerns, students learn to interpret the visual through methodologies dedicated to the historical, the material, the critical, and the theoretical. Students may complete a major or minor in History of Art. We encourage majors to supplement courses taken in the department with history of art courses offered at Haverford, Swarthmore, and the University of Pennsylvania. We also encourage majors to study abroad for a semester of their junior year.

MAJOR REQUIREMENTS

The major requires ten units, approved by the major advisor. A usual sequence of courses would include at least one 100-level "critical approaches" seminar, which also fulfills the departmental writing intensive requirement, four 200-level lecture courses, three 300-level seminars, and senior conference I and II in the fall and spring semesters of the senior year. We strongly advise that, in the course of their departmental studies, students take courses across media and areas, and in at least three of the following fields of study: Ancient and Medieval, Renaissance and Baroque, Modern and Contemporary, Film, and Global/Non-Western.

With the approval of the major advisor, students may count courses in fine arts or with significant curricular investment in visual studies toward the fulfillment of the distribution requirements, such as courses in ancient art offered by the Classical and Near Eastern Archaeology department or in architecture by the Growth and Structure of Cities department. Similarly, students may count courses in art history taken abroad or at another institution in the United States. Generally, students may count no more than two such courses toward the major requirements.

Majors must submit a senior thesis, based on independent research and using scholarly methods of historical and/or critical interpretation, at the end of the spring semester. Generally 25-40 pages in length, the senior thesis represents the culmination of the departmental experience.

HONORS

The department invites seniors whose work is outstanding (with a 3.7 GPA in the major) to submit an honors thesis. Two or three faculty members discuss the completed thesis with the honors candidate in a one-half hour oral examination.

MINOR REQUIREMENTS

A minor in history of art requires six units: one or two 100-level courses and four or five others selected in consultation with the major adviser.

FACULTY

Lisa Saltzman
Chair and Professor of History of Art and the Andrew W. Mellon Foundation Chair in the Humanities

David Cast
Eugenia Chase Guild Chair in the Humanities and Professor of History of Art

Christian Hertel
Katherine E. McBride Professor Emeritus of History of Art

Homay King
Associate Professor of History of Art and Director of the Center for Visual Culture

Steven Levine
Professor of History of Art on the Leslie Clark Professorship in the Humanities (on leave semesters I and II)

Leslie Shipley
Lecturer

Alicia Wilcox Walker
Assistant Professor of History of Art on the Marie Neuberger Fund for the Study of Arts

Michelle Wang
Instructor

COURSES

HART B100 THE STUFF OF ART
An introduction to chemistry through fine arts, this course emphasizes the close relationship of the fine arts, especially painting, to the development of chemistry and its practice. The historical role of the material in the arts, in alchemy and in the developing science of chemistry, will be discussed, as well as the synergy between these areas. Relevant principles of chemistry will be illustrated through the handling, synthesis and/or transformations of the material. This course does not count towards chemistry major requirements, and is not suitable for premedical programs. Lecture 90 minutes, laboratory three hours a week. Enrollment limited to 20.

HART B104 CRITICAL APPROACHES TO VISUAL REPRESENTATION: THE CLASSICAL TRADITION
D. Cast
An investigation of the historical and philosophical ideas of the classical, with particular attention to the Italian Renaissance and the continuance of its formulations throughout the Westernized world.

HART B106 ART OF THE GLOBAL MIDDLE AGES
This course considers the art and architecture of the middle ages from a global perspective and surveys artistic interaction between Europe, Africa, and Asia from the fourth to fifteenth century. Emphasis is placed on theories of globalism and their articulation in relation to medieval cultures and history.

HART B107 CRITICAL APPROACHES TO VISUAL REPRESENTATION: SELF AND OTHER IN THE ARTS OF FRANCE
L. Shipley
A study of artists' self-representations in the context of the philosophy and psychology of their time, with particular attention to issues of political patronage, gender and class, power and desire.

HART B108 CRITICAL APPROACHES TO VISUAL REPRESENTATION: WOMEN, FEMINISM, AND HISTORY OF ART
L. Saltzman
An investigation of the history of art since the Renaissance organized around the practice of women artists, the representation of women in art, and the visual economy of the gaze.

HART B110 CRITICAL APPROACHES TO VISUAL REPRESENTATION: IDENTIFICATION IN THE CINEMA
H. King
An introduction to the analysis of film through particular attention to the role of the spectator. Why do moving images compel our fascination? How exactly do film spectators relate to the people, objects, and places that appear on the screen? Wherein lies the power of images to move, attract, repel, persuade, or transform its viewers? In this course, students will be introduced to film theory through the rich and complex topic of identification. We will explore how points of view are framed in cinema, and how those viewing positions differ from those of still photography, advertising, video games, and other forms of media. Students will be encouraged to consider the role the cinematic medium plays in influencing our experience of a film: how it is not simply a film's content, but the very form of representation that creates interactions between the spectator and the images on the screen. Film screenings include Psycho, Being John Malkovich, and others. Course is geared to freshman and those with no prior film instruction. Fulfills History of Art major 100-level course requirement, Film Studies minor Introductory course or Theory course requirement. Syllabus is subject to change at instructor's discretion.

HART B125 CLASSICAL MYTHS IN ART AND IN THE SKY
This course explores Greek and Roman mythology using an archaeological and art historical approach, focusing on the ways in which the traditional tales of the gods and heroes were depicted, developed and transmitted in the visual arts such as vase painting and architectural sculpture, as well as projected into the natural environment.

HART B190 THE FORM OF THE CITY: URBAN FORM FROM ANTIQUITY TO THE PRESENT
J. Cohen, A. Siddiqi
This course studies the city as a three-

dimensional artifact. A variety of factors—geography, economic and population structure, politics, planning, and aesthetics—are considered as determinants of urban form.

HART B204 GREEK SCULPTURE

One of the best preserved categories of evidence for ancient Greek culture is sculpture. The Greeks devoted immense resources to producing sculpture that encompassed many materials and forms and served a variety of important social functions. This course examines sculptural production in Greece and neighboring lands from the Bronze Age through the fourth century B.C.E. with special attention to style, iconography and historical and social context.

HART B205 INTRODUCTION TO FILM

M. Tratner

This course is intended to provide students with the tools of critical film analysis. Through readings of images and sounds, sections of films and entire narratives, students will cultivate the habits of critical viewing and establish a foundation for focused work in film studies. The course introduces formal and technical units of cinematic meaning and categories of genre and history that add up to the experiences and meanings we call cinema. Although much of the course material will focus on the Hollywood style of film, examples will be drawn from the history of cinema. Attendance at weekly screenings is mandatory.

HART B206 HELLENISTIC AND ROMAN SCULPTURE

A. Donohue

This course surveys the sculpture produced from the fourth century B.C.E. to the fourth century C.E., the period, beginning with the death of Alexander the Great, that saw the transformation of the classical world through the rise of Rome and the establishment and expansion of the Roman Empire. Style, iconography, and production will be studied in the contexts of the culture of the Hellenistic kingdoms, the Roman appropriation of Greek culture, the role of art in Roman society, and the significance of Hellenistic and Roman sculpture in the post-antique classical tradition.

HART B211 TOPICS IN MEDIEVAL ART HISTORY

A. Walker

This is a topics course. Course content varies.
Spring 2015 topic: This course traces the development of Islamic art and architecture beginning with the emergence of Islam in the early 7th century and ending with the Mongol invasion and the fall of the Abbasid Empire in the mid-13th century. Special attention is paid to issues of particular importance of the study of Islamic art, including aniconism, the role of inscriptions as an expressive art form, and the relationship of early Islamic art to other late antique and medieval artistic traditions.

HART B212 MEDIEVAL ARCHITECTURE

This course takes a broad geographic and chronological scope, allowing for full exposure to the rich variety of objects and monuments that fall under the rubric of "medieval" art and architecture. We focus on the Latin and Byzantine Christian traditions, but also consider works of art and architecture from the Islamic and Jewish spheres. Topics to be discussed include: the role of religion in artistic development and expression; secular traditions of medieval art and culture; facture and materiality in the art of the middle ages; the use of objects and monuments to convey political power and social prestige; gender dynamics in medieval visual culture; and the contribution of medieval art and architecture to later artistic traditions.

HART B213 THEORY IN PRACTICE: CRITICAL DISCOURSES IN THE HUMANITIES

An examination in English of leading theories of interpretation from Classical Tradition to Modern and Post-Modern Time. This is a topics course. Course content varies.

HART B215 RUSSIAN AVANT-GARDE ART, LITERATURE AND FILM

This course focuses on Russian avant-garde painting, literature and cinema at the start of the 20th century. Moving from Imperial Russian art to Stalinist aesthetics, we explore the rise of non-objective painting (Malevich, Kandinsky, etc.), ground-breaking literature (Bely, Mayakovsky), and revolutionary cinema (Vertov, Eisenstein). No knowledge of Russian required.

HART B216 THE CITY OF NAPLES

The city of Naples emerged during the Later Middle Ages as the capital of a Kingdom and one of the most influential cities in the Mediterranean region. What led to the city's rise, and what effect did the city as a cultural, political, and economic force have on the rest of the region and beyond?

This course will familiarize students with the art, architecture, culture, and institutions that made the city one of the most influential in Europe and the Mediterranean region during the Late Middle Ages. Topics include court painters in service to the crown, female monastic spaces and patronage, and the revival of dynastic tomb sculpture.

HART B219 MULTICULTURALISM IN MEDIEVAL ITALY

A. Harper

This course examines cross-cultural interactions in medieval Italy played out through the patronage, production, and reception of works of art and architecture. Sites of patronage and production include the cities of Venice, Palermo, and Pisa. Media examined include buildings, mosaics, ivories, and textiles.

HART B227 TOPICS IN MODERN PLANNING

A. Siddiqi

This is a topics course. Course content varies. **Spring 2015 topic:** Through studies of human rights, governmental and nongovernmental practice, armed conflict, and urban and political activism, we will examine how architecture colludes with or resists social ordering systems, asking two questions of contemporary and historical examples. How has political activism intervened spatially, visually, and materially upon societies and cultures? How have spatial politics configured modes of resistance?

HART B229 TOPICS IN COMPARATIVE URBANISM

G. McDonogh

This is a topics course. Course content varies. Spring 2015 topic: Probing the relations of power at the heart of power and society in many cities worldwide, this class uses case studies to test urban theory, forms and practice. In order to grapple with colonialism and its aftermaths, we will focus on cities in North Africa (and France), Northern Ireland, Hong Kong and Cuba, systematically exploring research, writing and insights from systematic interdisciplinary comparisons.

HART B230 RENAISSANCE ART

A survey of painting in Florence and Rome in the 15th and 16th centuries (Giotto, Masaccio, Botticelli, Leonardo, Michelangelo, Raphael), with particular attention to contemporary intellectual, social, and religious developments.

HART B234 PICTURING WOMEN IN CLASSICAL ANTIQUITY

We investigate representations of women in different media in ancient Greece and Rome, examining the cultural stereotypes of women and the gender roles that they reinforce. We also study the daily life of women in the ancient world, the objects that they were associated with in life and death and their occupations.

HART B238 TOPICS: THE HISTORY OF CINEMA 1895–1945

This is a topics course. Course content varies.

HART B241 NEW VISUAL WORLDS IN THE SPANISH EMPIRE 1492–1820

The events of 1492 changed the world. Visual works made at the time of the Conquest of the Caribbean, Mexico and South America by Spain and Portugal reveal multiple and often conflicting political, racial and ethnic agendas.

HART B242 MATERIAL IDENTITIES IN LATIN AMERICA 1820–2010

Revolutions in Latin America begin around 1810. By the 20th and 21st centuries, there is an international viewership for the works of Latin American artists, and in the 21st century the production of Latina and Latino artists living in the United States becomes particularly important.

HART B250 19TH-CENTURY ART IN FRANCE

Close attention is selectively given to the work of Cézanne, Courbet, David, Degas, Delacroix, Géricault, Ingres, Manet, and Monet. Extensive readings in art criticism are required.

HART B253 SURVEY OF WESTERN ARCHITECTURE

D. Cast

The major traditions in Western architecture are illustrated through detailed analysis of selected examples from classical antiquity to the present. The evolution of architectural design and building technology, and the larger intellectual, aesthetic, and social context in which this evolution occurred, are considered.

HART B254 HISTORY OF MODERN ARCHITECTURE

A. Siddiqi

A survey of the development of modern architecture since the 18th century. The course focuses on international networks in the transmission of architectural ideas since 1890.

HART B255 SURVEY OF AMERICAN ARCHITECTURE

An examination of landmarks, patterns, contexts, architectural decision-makers and motives of various players in the creation of the American built environment over the course of four centuries. The course will address the sequence of examples that comprise the master narrative of the traditional survey course, while also casting a questioning eye, probing the relation of this canon to the wider realms of building in the United States.

HART B266 CONTEMPORARY ART

America, Europe and beyond, from the 1950s to the present, in visual media and visual theory.

HART B268 GREEK AND ROMAN ARCHITECTURE

A survey of Greek and Roman architecture taking into account building materials, construction techniques, various forms of architecture in their urban and religious settings from an historical and social perspective.

HART B272 SINCE 1960: CONTEMPORARY ART AND THEORY

R. DeRoo

Lectures and readings will examine major movements in contemporary art, including Pop Art, Minimalism, Conceptualism, Performance, Postmodernism, and Installation Art. We will examine the dialogue between visual works and critical texts by Roland Barthes, Claire Bishop, Frederic Jameson, Adrian Piper, and Kobena Mercer, among others.

HART B273 TOPICS IN EARLY CHINA

This is a topics course. Course content varies.

HART B274 TOPICS IN CHINESE ART

M. Wang

This is a topics course. Course content varies. **Fall 2014 topic:** Focuses on 20th to 21st century Chinese visual culture, and it will be organized around four phases of art production during the past hundred or so years: 1) the major transition from the imperial Qing dynasty to the tumultuous Republican period in 1911, 2) art production after Mao Zedong's famous Talks on Literature and Art in 1942, 3) visual objects produced during and shortly after the Cultural Revolution (1966-1976), and 4) contemporary art in China in the last three decades.

HART B299 HISTORY OF NARRATIVE CINEMA, 1945 TO THE PRESENT

H. King

This course surveys the history of narrative film from 1945 through contemporary cinema. We will analyze a chronological series of styles and national cinemas, including Classical Hollywood, Italian Neorealism, the French New Wave, and other post-war movements and genres. Viewings of canonical films will be supplemented by more recent examples of global cinema. While historical in approach, this course emphasizes the theory and criticism of the sound film, and we will consider various methodological approaches to the aesthetic, socio-political, and psychological dimensions of cinema. Readings will provide historical context, and will introduce students to key concepts in film studies such as realism, formalism, spectatorship, the auteur theory, and genre studies. Fulfills the history requirement or the introductory course requirement for the Film Studies minor.

HART B300 THE CURATOR IN THE MUSEUM

This course provides an introduction to theoretical and practical aspects of museums and to the links between practice and theory that are the defining characteristic of the museum curator's work today. The challenges and opportunities confronting curators and their colleagues, peers, audiences, and constituents will be addressed through readings, discussions, guest presentations, writings, and individual and group projects.

HART B301 MAKING AN EXHIBITION: PERSPECTIVES ON MUSEUMS

This course connects the theory and practice of museum exhibitions and other activities—and addresses the conceptual and organizational development of museums during the twentieth century and today—through the development, implementation, and assessment of an exhibition and related programs. Students will study the history and practice of museum exhibition-making while organizing a major public exhibition. They will work individually and as members of groups with student colleagues, with Bryn Mawr College faculty and staff, and with guests selected for their expertise in and knowledge of a range of museum activities and perspectives. The theory and practice of museum exhibition influences and relies upon methodological, anthropological, art

historical, philosophical, historical, sociological, psychological, and organizational perspectives on the prominent place museums occupy in this culture. The course will consist of a series of encounters between the practice of, and reflection on, making an exhibition. Recommended Preparation: Relevant coursework in history of art, fine arts, archaeology, anthropology, history, or other fields in which museums play a prominent role.

HART B306 FILM THEORY

H. King

An introduction to major developments in film theory and criticism. Topics covered include: the specificity of film form; cinematic realism; the cinematic "author"; the politics and ideology of cinema; the relation between cinema and language; spectatorship, identification, and subjectivity; archival and historical problems in film studies; the relation between film studies and other disciplines of aesthetic and social criticism. Each week of the syllabus pairs critical writing(s) on a central principle of film analysis with a cinematic example. Class will be divided between discussion of critical texts and attempts to apply them to a primary cinematic text.

HART B311 TOPICS IN MEDIEVAL ART

A. Walker,A.

This is a topics course. Course content varies.

Spring 2015 topic: This course explores a range of theoretical models that have been brought to bear on the study of Byzantine objects in recent years, including thing theory, portability, the social life of things, material culture studies, entanglement, and gift theory.

HART B323 TOPICS IN RENAISSANCE AND BAROQUE ART

C. Hertel,C.

This is a topics course. Course content varies.

Spring 2015 topic: This course explores the origins of the museum by attending to early modern practices of collecting and displaying art and artifacts, with particular attention to the "Kunstkammer" or curiosity cabinet, collections of art, books, prints, small scientific instruments, and so-called "marvels" of art and nature, both European and colonial, including rocks and ore, shells and even stuffed animals.

HART B324 ROMAN ARCHITECTURE

The course gives special attention to the architecture and topography of ancient Rome from the origins of the city to the later Roman Empire. At the same time, general issues in architecture and planning with particular reference to Italy and the provinces from republic to empire are also addressed. These include public and domestic spaces, structures, settings and uses, urban infrastructure, the relationship of towns and territories, "suburban" and working villas, and frontier settlements. Prerequisite: ARCH 102.

HART B330 ARCHITECTURE AND IDENTITY IN ITALY: RENAISSANCE TO THE PRESENT

How is architecture used to shape our understanding of past and current identities? This course looks at the ways in which architecture has been understood to represent, and used to shape regional, national, ethnic, and gender identities in Italy from the Renaissance to the present. The class focuses on Italy's classical traditions, and looks at the ways in which architects and theorists have accepted or rejected the peninsula's classical roots. Subjects studied include Baroque Architecture, the Risorgimento, Futurism, Fascism, and colonialism. Course readings include Vitruvius, Leon Battista Alberti, Giorgio Vasari, Jacob Burckhardt, and Alois Riegl, among others.

HART B334 TOPICS IN FILM STUDIES

This is a topics course. Course content varies.

HART B336 TOPICS IN FILM

This course examines experimental film and video from the 1930s to present. It will concentrate on the use of found footage: the reworking of existing imagery in order to generate new aesthetic frameworks and cultural meanings. Key issues to be explored include copyright, piracy, archive, activism, affect, aesthetics, interactivity, and fandom.

HART B339 THE ART OF ITALIAN UNIFICATION

A. Harper

Following Italian unification (1815–1871), the statesman, novelist, and painter Massimo d'Azeglio remarked, "Italy has been made; now it remains to make Italians." This course examines the art and architectural movements of the roughly 100 years between the uprisings of 1848 and the beginning of the Second World War, a critical period for defining Italiantà.

Subjects include the paintings of the Macchiaioli, reactionaries to the 1848 uprisings and the Italian Independence Wars, the politics of nineteenth-century architectural restoration in Italy, the re-urbanization of Italy's new capital Rome, Fascist architecture and urbanism, and the architecture of Italy's African colonies.

HART B340 TOPICS IN BAROQUE ART

This is a topics course. Course content varies.

HART B348 ADVANCED TOPICS IN GERMAN CULTURAL STUDIES

A. Seyhan

This is a topics course. Course content varies.
Spring 2015 topic: In the condition of exile, the writers, whose works were banned or censored in their own countries, cannot pursue their craft, unless their works are translated, either by professional translators or by themselves. Many writers who are in exile in Germany today write directly in German as a form of self-translation. This course will examine how works of diverse cultures survive in German translation and contribute to German culture. Crosslisted with GERM B321.

HART B350 TOPICS IN MODERN ART

R. DeRoo

This is a topics course. Course content varies.
Spring 2015 topic: TBA.

HART B354 GENDER AND CONTEMPORARY ART

R. DeRoo

We examine artists from 1960 to the present whose work thematizes gender, including Robert Morris, Cindy Sherman, Kiki Smith, and Mike Kelley.

HART B355 TOPICS IN THE HISTORY OF LONDON

D. Cast

Selected topics of social, literary, and architectural concern in the history of London, emphasizing London since the 18th century.

HART B358 TOPICS IN CLASSICAL ART AND ARCHAEOLOGY

This is a topics course. Course content varies.

HART B359 TOPICS IN URBAN CULTURE AND SOCIETY

This is a topics course. Course content varies.
Spring 2015 topic: This course is a social scientific examination of various types of borderlands—spaces of cross-national and cross-cultural exchange—around the world. We will explore the social, cultural, political, and geographic processes and interactions that occur within these spaces. Specific types of borderlands explored in the course may include geo-political borders, bordertowns, suburbs, frontiers, divided cities, and global borderlands.

HART B370 TOPICS IN CHINESE ART

M. Wang

This is a topics course. Course content varies.
Fall 2014, Spring 2015 topic: This course examines comparative perspectives on ornament and decorative arts. Current topic description: This seminar examines Chinese painting by presupposing that all aspects of these paintings have or share agency, creating multiple networks of meaning. In other words, we complicate the traditional triage of art works sitting at the intersection of a painter and patron relationship by understanding each element in the production of a Chinese painting as meaningful nodes in a complex relationship composed of people, places, and things.

HART B372 FEMINIST ART AND THEORY, 1970–PRESENT

R. DeRoo

How have feminist artists and theorists challenged the conventions of art history? This course begins with the feminist art world activism that arose in the 1970s in the context of the women's liberation movement and continues through current issues in global feminism. In the 1970s, feminist activist artists sought to establish new forms of art education, venues for exhibition, theoretical writing, and creative working methods to provide alternatives to traditional art institutions and art criticism. We examine how current artists, building on this recent history, continue to develop feminist aesthetics and politics in a variety of contemporary practices, including installation art, multimedia art, and performance.

HART B373 CONTEMPORARY ART IN EXHIBITION: MUSEUMS AND BEYOND

R. DeRoo

How does the collection and display of artwork create meanings beyond the individual art object? In recent decades, enormous shifts have occurred in exhibition design as artwork projected from the walls of the museum,

moved outdoors to the space of the street, and eventually went online. We will study an array of contemporary exhibition practices and sites in their social and historical contexts, including the temporary exhibition, "the white cube," the "black box," museum installations, international biennials, and websites. During the seminar, we will examine how issues such as patronage, avant-gardism, globalization, and identity politics have progressively brought museums and other exhibition spaces into question.

HART B377 TOPICS IN MODERN ARCHITECTURE

A. Siddiqi

This is a topics course on modern architecture. Topics vary.

Fall 2014, Spring 2015 topic: This course examines historical change in the period from World War II to the present through the concepts of mobility and territory. In shared readings on architectural and urban issues, we will examine territorial remapping, human displacement, and the emergence of new technologies to address this reorganization of space and human life. Independent student projects will probe themes of sovereignty and citizenship, cosmopolitanism and difference.

HART B380 TOPICS IN CONTEMPORARY ART

L. Saltzman

This is a topics course. Course content varies.

Fall 2014, Spring 2015 topic: TBA Current topic description: This course examines, week by week, artists from around the globe: the Americas, Europe, Asia, and Africa.

HART B397 JUNIOR SEMINAR

Designed to introduce majors to the canonical texts in the field of art history and to formalize their understanding of art history as a discipline. Required of and limited to History of Art majors.

HART B398 SENIOR CONFERENCE I

L. Saltzman, M. Wang

A critical review of the discipline of art history in preparation for the senior thesis. Required of all senior majors.

HART B399 SENIOR CONFERENCE II

D. Cast, A. Walker, M. Wang

A seminar for the discussion of senior thesis research and such theoretical and historical concerns as may be appropriate. Interim oral reports. Required of all majors; culminates in the senior thesis.

HART B403 SUPERVISED WORK

Advanced students may do independent research under the supervision of a faculty member whose special competence coincides with the area of the proposed research. Consent of the supervising faculty member and of the major adviser is required.

HART B425 PRAXIS III

Students are encouraged to develop internship projects in the college's collections and other art institutions in the region.

HART B610 TOPICS IN MEDIEVAL ART

A. Walker

This is a topics course. Course content varies.

Fall 2014, Spring 2015 topic: This course assesses the presentation of Byzantine art and architecture in survey books from the nineteenth century to today. Taking a historiographic perspective on this literature, the course provides an overview of the changing interpretation of Byzantine art and architecture over time. Current topic description: This course explores a range of theoretical models that have been brought to bear on the study of Byzantine objects in recent years, including thing theory, portability, the social life of things, material culture studies, entanglement, and gift theory.

HART B630 TOPICS IN RENAISSANCE AND BAROQUE ART

C. Hertel

This is a topics course. Course content varies.

Spring 2015 topic: This course explores the origins of the museum by attending to early modern practices of collecting and displaying art and artifacts, with particular attention to the "Kunstkammer" or curiosity cabinet, collections of art, books, prints, small scientific instruments, and so-called "marvels" of art and nature, both European and colonial, including rocks and ore, shells and even stuffed animals.

HART B636 VASARI

This seminar focuses on Giorgio Vasari as painter and architect and above all as a founder of the Florentine Academy and the writer of the first modern history of the arts. Topics covered range across the arts of that time and then the

questions any such critical accounting of the arts calls up, imitation, invention, the notion of the artist and however it is possible to capture in words what seems often to be beyond them.

HART B640 TOPICS IN BAROQUE ART: SPANISH PAINTING AND SCULPTURE

This is a topics course. Course content varies.

HART B645 PROBLEMS IN REPRESENTATION

D. Cast

This seminar examines, as philosophy and history, the idea of realism, as seen in the visual arts since the Renaissance and beyond to the 19th and 20th centuries.

HART B650 TOPICS IN MODERN ART

This is a topics course. Topics vary. Admission by permission of the instructor.

HART B651 TOPICS: INTERPRETATION AND THEORY

L. Saltzman

This is a topics course. Course content varies.
Fall 2014 topic: This course examines a range of theoretical approaches to abstraction.

HART B671 TOPICS IN GERMAN ART

This is a topics course. Topics vary.

HART B672 FEMINIST ART AND THEORY, 1970–PRESENT

How have feminist artists and theorists challenged the conventions of art history? This course begins with the feminist art world activism that arose in the 1970s in the context of the women's liberation movement and continues through current issues in global feminism. In the 1970s, feminist activist artists sought to establish new forms of art education, venues for exhibition, theoretical writing, and creative working methods to provide alternatives to traditional art institutions and art criticism. We examine how current artists, building on this recent history, continue to develop feminist aesthetics and politics in a variety of contemporary practices, including installation art, multimedia art, and performance.

HART B673 CONTEMPORARY ART IN EXHIBITION: MUSEUMS AND BEYOND

R. DeRoo

How does the collection and display of artwork create meanings beyond the individual art object? In recent decades, enormous shifts have occurred in exhibition design as artwork projected from the walls of the museum, moved outdoors to the space of the street, and eventually went online. We will study an array of contemporary exhibition practices and sites in their social and historical contexts, including the temporary exhibition, "the white cube," the "black box," museum installations, international biennials, and websites. During the seminar, we will examine how issues such as patronage, avant-gardism, globalization, and identity politics have progressively brought museums and other exhibition spaces into question.

HART B678 PORTRAITURE

This seminar on self-portraiture examines the representation of the individual from the Renaissance to the present in painting, photography, and film. Artists range from Artemisia Gentileschi and Poussin to Cézanne and Cindy Sherman.

HART B680 TOPICS IN CONTEMPORARY ART

L. Saltzman, R. DeRoo

This is a topics course. Course content varies.
Fall 2014, Spring 2015 topic: This course examines, week by week, artists from around the globe: America, Europe, Asia, and Africa.

HART B701 SUPERVISED WORK

D. Cast, S. Levine, A. Walker, C. Hertel, L. Saltzman, H. King

Supervised Work

INDEPENDENT COLLEGE PROGRAMS

These courses, offered by visiting professors and members of the various departments of the College, are in different ways outside the major programs of the departments. They may be introductory in approach, or they may be interdisciplinary, bringing the insights and techniques of one discipline to bear on the problems important to another. They attempt to introduce students to intellectual experiences that are different from the ones available in our departmental curricula. These courses have no prerequisites, except where explicitly stated in descriptions below.

FACULTY

Linda G. Gerstein
Chair and Professor

Daniel H. Weiss
President and Professor

M. Kaye Edwards
Associate Professor

Megan Heckert
Assistant Professor

Victoria Funari
Artist in Residence

COURSES

115 INTRODUCTION TO HEALTH STUDIES

Christopher Roebuck, Kaye Edwards
The multidisciplinary foundation for the health studies minor. Students are introduced to theories and methods from the life sciences, social sciences, and humanities and will learn to apply them to problems of health and illness. Topics include epidemiological, public health, and biomedical perspectives on health and disease; social, behavioral, and environmental determinants of health; globalization of health issues; cultural representations of illness; health inequalities, social justice, and the ethics of health as a human right.

207 DISABILITY, IDENTITY, CULTURE

Kristin Anne Lindgren
An exploration of representations of illness and disability in literature, culture, and visual art. Course units focus on identity theory and identity politics, portraiture, ethical storytelling, bioethical dilemmas, and intersections with race, gender and sexuality, and class.

208 HIGHER EDUCATION AND LIBERAL ARTS

Daniel H. Weiss
This course will examine the distinct roles of residential liberal arts colleges in the United States, the current structure and practices of liberal arts colleges, and the future of this type of undergraduate education in the United States.

216 SOCIAL JUSTICE TRADITIONS

Andrew Cornell
A historical study of the civil rights, antiwar, counter-culture, and feminist initiatives of the 1960s. This course will explore how progressive and radical activists adjusted their theories and strategies after the '60s as the country became more conservative in the 1970s and 1980s. Making use of movement documents, documentary films, and a variety of other sources, the course traces the development of LGBTQ, ecological, and economic justice initiatives up to the present day.

223 MENTAL AFFLICTION

Sue Benston
Drawing on illness memoirs, literary fiction, case histories, and essays in neuroscience, physics, and philosophy of mind, this course will explore how far the vehicle of language can transport us into turbulent mental landscapes without itself breaking down. The syllabus will feature selections from numerous authors such as Nancy Andreasen, John Barth, Samuel Beckett, Jorge Luis Borges, Robert Coover, Antonio Damasio, Daniel Dennett, Julie Holland, Clarice Lispector, Vladimir Nabokov, Thomas Nagel, Steven Pinker, Fernando Pessoa, Elyn Saks, Lawrence Shainberg, Max Tegmark, and Lu Xun.

235 POST-IMPRESSIONSTS

Carol Solomon

Using various art-historical approaches, this course focus on the works of major Post-Impressionist artists: Seurat, Cezanne, Van Gogh, and Gauguin. This course will include a field trip to the Barnes Foundation.

236 ART POLITCS, AND SOCIETY IN 19TH-CENTURY EUROPE

Carol Solomon

This course explores European art in the context of political, social, and cultural developments in the period from the late 18th century to the middle decades of the 19th century. Neoclassicism, Romanticism, and Realism are the artistic movements of this period. Artists discussed include David, Goya, Friedrich, Turner, Constable, and Gericault among others. Course includes at least one visit to the Philadelphia Museum of Art.

243 VIDEO PRODUCTION

Victoria Funari

Enrollment limited to 15 students. The craft and theory of documentary video production. The basics, including use of HD digital cameras, lighting and sound techniques, and nonlinear video editing, culminating in the completion of short documentaries during the semester. Attendance at weekly documentary screenings is required.

244 QUAKER SOCIAL WITNESS

Kaye Edwards

Seminar course examining the commitment to social justice within the Religious Society of Friends (Quakers), exploring its religious foundation and highlighting historical and current manifestations. Readings on Quaker testimonies and on the roles of Quakers in abolition, suffrage, and peace are complemented by guest speakers from Quaker social justice organizations.

247 FINANCIAL AND MANGERIAL ACCOUNTING

Neal Grabell

An introduction to financial accounting concepts, financial reporting, and managerial accounting. The course addresses how accounting measures, records, and reports economic activities for business entities and how decision makers analyze, interpret, and use accounting information.

250 THEORY AND PRACTICE OF EXHIBITIONS

John Muse

An introduction to the theory and practice of exhibition and display. This course supplies students with the analytic tools necessary to understand how exhibitions work and gives them practical experience making arguments with objects, images, texts, and events.

277 BUSINESS AND PROFESSIONAL ETHICS

Neal Grabell

Through an exploration of ethical theory and case studies, we examine topics such as: the tension between compliance with the law and the profit motive, professional responsibility and detachment, the proper treatment of clients/patients, short-term versus long-term benefits, the relevance of social benefits claims to business practice, doing "well" by doing "good," and the dilemma of ethical relativism in the world of international business.

281 VIOLENCE AND PUBLIC HEALTH

Kaye Edwards

An interdisciplinary seminar course analyzing the advantages and limitations of a public health perspective on violence. We examine how every-day violence, direct political violence, and structural violence effect public health, as well as evidence that violence is preventable and amenable to public health strategies.

290 INTERDISCIPLINARY PERSPECTIVES ON GENDER

Anne Marie McGuire

297 TIME AFTER TIME: TEMPORALITY

This course examines how film and philosophy deal with problems of time and temporality in the contemporary era—including metaphysical, physical, ethical, and political time. Films such as Memento, Terminator and 2001 are read alongside works by Heidegger, Bergson, Freud, Arendt, Benjamin, etc.

298 IMPACT INVESTING

Shannon B. Mudd

Impact investing is investing to generate both a financial return and a positive social benefit. It supports firms seeking to address social, environmental and /or governance problems (ESG) in a sustainable way often within market activity. The focus of this course is to gain not only an understanding of the theory and practice of impact investing across its many

components, but also practical experience by assessing a particular set of potential impact investments, making formal presentations of findings to an investment committee leading to a recommendation for investment to a partnering foundation.

301 HUMAN RIGHTS DEVELOPMENT AND INTERNATIONAL ACTIVISM

302 BODIES OF INJUSTCE

Carol Schilling

For students returning from internship experiences who wish to deepen their understanding of social justice, health, and healthcare. The course integrates experiential learning with humanities and social medicine readings on witnessing and representing inequalities, cultural conceptions of health, structural determinants of health, and addressing health inequalities in the United States and other countries. Structural determinants include education, food resources, markets, medical and social services, governments, environments, transportation, cultures, languages, and more.

306 ANARCHISMS

Andrew Cornell

An inquiry into anarchist political thought and action from the 19th to the 21st century. We study anarchist views on human nature, democracy, capitalism, feminism, imperialism, and ecology, comparing them with liberal and Marxist perspectives.

311 REPRODUCTIVE HEALTH AND JUSTICE

Christopher Roebuck, Kaye Edwards

Seminar analyzing disparities in reproductive health outcomes, access to sexual health care, and protections of reproductive rights within Nicaragua and the United States.

325B CONTEMPORARY ARAB ART

Carol Solomon

This interdisciplinary course considers aspects of contemporary art, architecture, and visual culture of North Africa and the Middle East and the other two principal non-Arab Muslim states in the region,Iran and Turkey.

343 ADVANCED DOCUMENTARY PRODUCTION

Victoria Funari

Explores the craft of documentary filmmaking beyond the basics. Students produce fully-developed short digital video documentaries. They hone their camera and editing skills and learn basic producer's skills, including proposal writing, legal frameworks, fundraising, and distribution trends. Attendance at weekly Thursday evening documentary screenings is required.

ITALIAN AND ITALIAN STUDIES AT BRYN MAWR COLLEGE

brynmawr.edu/italian

Students may complete a major or minor in Italian and Italian Studies.

Based on an interdisciplinary approach that views culture as a global phenomenon, the aims of the major in Italian Studies are to acquire a knowledge of Italian language, literature, and culture, including cinema, art, journalism, pop culture, and music. The Department of Italian Studies (brynmawr.edu/italian) also cooperates with the Departments of French and Spanish in the Romance Languages major and with the other foreign languages in the Tri-Co for a major in Comparative Literature. The Italian Department cooperates also with the Center for International Studies (CIS).

COLLEGE FOREIGN LANGUAGE REQUIREMENT

Before the start of the senior year, each student must complete, with a grade of 2.0 or higher, two units of foreign language. Students may fulfill the requirement by completing two sequential semester-long courses in one language, either at the elementary level or, depending on the result of their language placement test, at the intermediate level. A student who is prepared for advanced work may complete the requirement instead with two advanced freestanding semester-long courses in the foreign language(s) in which she is proficient. Non-native speakers of English may choose to satisfy all or part of this requirement by coursework in English literature.

MAJOR REQUIREMENTS

Italian Language/Literature (ILL) and Italian Cultural Studies (ICS) Major

The Italian Language/Literature major and the Italian Cultural Studies major consists of ten courses starting at the ITAL 101/102 level, or an equivalent two-semester sequence taken elsewhere. The department offers a two-track system as guidelines for completing the major in Italian or in Italian Studies. Both tracks require ten courses, including ITAL 101 -102. For students in either Track A or B we recommend a senior experience offered with ITAL 398 and ITAL 399, courses that are required for honors. Students may complete either track. Recommendations are included below—models of different pathways through the major:

Majors are required to complete one Writing Intensive (WI) course in the major. The WI courses will prepare students towards their senior project and to competent and appropriate writing, manly in three ways:
1) Teach the writing process: planning, drafting, revising, and editing.
2) Emphasize the role of writing by allocating a substantial portion of the final grade to writing assignments.
3) Offer students the opportunity to receive feedback from professors and peers (through class peer review sessions).
In responding to the feedback, students will experience writing as a process of discovery (re-visioning) and meaning. The goal of the new WI course will be to get students to re-think the argument, logical connection, focus, transition, evidence, quotes, organization, and sources.

ILL MAJOR/TRACK A

Major requirements in ILL are 10 courses. Track A may be appropriate for students with an interest in literary and language studies. Required: ITAL 101/102, plus six courses (or more) conducted in Italian and two selected from among a list of approved ICS courses in English that may be taken in either within the department or in various other disciplines offered at the College (i.e., History, History of Art, English, Visual Art and Film Studies, Philosophy, Comparative Literature, Cities, Archaeology, Classics). Adjustments will be made for students taking courses abroad. Of the courses taken in Italian, students are expected to enroll in the following areas: Dante (ITAL 301), Renaissance (ITAL 304 or 302), Survey (ITAL 307), and two courses on Modern Italian literature (ITAL 380, ITAL 310, ITAL 320)

ICS/TRACK B

Major requirements in ICS are 10 courses. Track B may be appropriate for students with an interest in cultural and interdisciplinary studies. The concentration is open to all majors and consists of both interdisciplinary and single-discipline courses drawn from various academic departments at the college. Required: ITAL 101/102, plus three courses conducted in Italian and five related courses in English that may be taken either within the department or in an allied-related fields in various disciplines throughout the college, or courses taken on BMC approved study-abroad programs, such as: Culture, History, History of Art, English, Visual Art and Film Studies, Philosophy, Comparative Literature, Cities, Archaeology, Classics.

*Faculty in other programs may be willing to arrange work within courses that may count for the major.

HONORS REQUIREMENTS

Students may apply to complete the major with honors. The honors component requires the completion of a yearlong thesis advised by a faculty member in the department. Students enroll in the senior year in ITAL 398 and ITAL 399. Application to it requires a GPA in the major of 3.7 or higher, as well as a written statement, to be submitted by the fall of senior year, outlining the proposed project (see further below) and indicating the faculty member who has agreed to serve as advisor. The full departmental faculty vets the proposals.

SENIOR THESIS

Students will write and research a 40-50 page thesis that aims to be an original contribution to Italian scholarship. As such, it must use primary evidence and also engage with the relevant secondary literature. By the end of the fall semester, students must have completed twenty pages in draft. In April they give an oral presentation of their work of approximately one hour to faculty and interested students. The final draft is due on or around 30 April of the senior year and will be graded by two faculty members (one of whom is the advisor). The grade assigned is the major component of the spring semester grade. Proposals for the thesis should describe the questions being asked in the research, and how answers to them will contribute to scholarship. They must include a discussion of the primary sources on which the research will rest, as well as a preliminary bibliography of relevant secondary studies. They also must include a rough timetable indicating in what stages the work will be completed. It is expected that before submitting their proposals students will have conferred with a faculty member who has agreed to serve as advisor.

STUDY ABROAD

Students who are studying abroad for the Italian major for one year can earn two credits in Italian Literature and two credits in allied fields (total of four credits). Those who are studying abroad for one semester can earn no more than a total of two credits in Italian Literature or one credit in Italian Literature and one credit in an allied field (total of two credits).

UNIVERSITY OF PENNSYLVANIA

Students majoring at BMC cannot earn more than two credits at the University of Pennsylvania in Italian.

ITALIAN MINOR REQUIREMENTS

Requirements for the minor in Italian Studies are ITAL 101, 102 and four additional units including two at the 200 level, one of which in literature and two at the 300 level, one of which in literature. With departmental approval, students who begin their work in Italian at the 200 level will be exempted from ITAL 101 and 102. For courses in translation, the same conditions for majors apply.

ELECTIVE COURSES

CITY B207 Topics in Urban Studies
ARTW B240/COML B240 Literary Translation
COML 225 Censorship: Historical Contexts, Local Practices and Global Resonance
COML 213 Theory in Practice: Critical Discourses in the Humanities
CSTS 220 Writing the Self
CSTS B207 Early Rome and the Roman Republic
CSTS B208 The Roman Empire
CSTS B223 The Early Medieval World
ENG 385 Topics in Apocalyptic Writing – at Haverford College
ENG 220 Epic – at Haverford College
HART 253: Survey of Western Architecture:

1400-1800
HART 323: Topics in Renaissance Art
HART 630: Vasari
HART/RUSSIAN 215 Russian Avant-Garde Art, Literature and Film
HART 306 Film Theory
HIST 212, Pirates, Travelers and Natural Historians
MUSIC 207 Italian Keyboard Tradition - at Haverford College
LATN 200 Medieval Latin Literature
SPAN 202 Introduction to Literary Analysis

FACULTY

Roberta Ricci
Chair and Associate Professor of Italian and Director of Film Studies and Co-Director of Romance Languages

Alexander Harper
Postdoctoral Fellow in Italian

Michele Monserrati
Lecturer

Norman Rusin
Instructor

Gabriella Troncelletti
Instructional Assistant

COURSES

ITAL B001 ELEMENTARY ITALIAN

G. Troncelliti, M. Monserrati
The course is for students with no previous knowledge of Italian. It aims at giving the students a complete foundation in the Italian language, with particular attention to oral and written communication. The course will be conducted in Italian and will involve the study of all the basic structures of the language—phonological, grammatical, syntactical—with practice in conversation, reading, composition. Readings are chosen from a wide range of texts, while use of the language is encouraged through role-play, debates, songs, and creative composition.

ITAL B002 ELEMENTARY ITALIAN II

G. Troncelliti, M. Monserrati
This course is the continuation of ITAL B001 and is intended for students who have started studying Italian the semester before. It aims at giving the students a complete foundation in the Italian language, with particular attention to oral and written communication. The course will be conducted in Italian and will involve the study of all the basic structures of the language—phonological, grammatical, syntactical—with practice in conversation, reading, composition. Readings are chosen from a wide range of texts, while use of the language is encouraged through role-play, debates, songs, and creative composition. Prerequisite: ITAL B001 or placement.

ITAL B101 INTERMEDIATE ITALIAN

N. Rusin
This course provides students with a broader basis for learning to communicate effectively and accurately in Italian. While the principal aspect of the course is to further develop language abilities, the course also imparts a foundation for the understanding of modern and contemporary Italy. Students will gain an appreciation for Italian culture and be able to communicate orally and in writing in a wide variety of topics. We will read newspaper and magazine articles to analyze aspects on modern and contemporary Italy. We will also view and discuss Italian films and internet materials.

ITAL B102 INTERMEDIATE ITALIAN

N. Rusin
This course provides students with a broader basis for learning to communicate effectively and accurately in Italian. While the principal aspect of the course is to further develop language abilities, the course also imparts a foundation for the understanding of modern and contemporary Italy. Students will gain an appreciation for Italian culture and be able to communicate orally and in writing in a wide variety of topics. We will read a novel to analyze aspects on modern and contemporary Italy. We will also view and discuss Italian films and internet materials. Prerequisite: ITAL B101 or placement.

ITAL B200 PATHWAYS TO PROFICIENCY

This course is intended for students who have already completed the elementary-intermediate sequence and who are interested in pursuing the study of Italian. The aim of the course is to improve students' proficiency in the Italian language, so that they will be able to take more advanced courses in Italian literature and cultural

studies. The focus of this course is to expose students to crucial issues that have influenced Italian culture and society, concurring to develop distinctive ways of thinking, cultural artifacts (literary works, music, works of art, and so on), and that are at the core of contemporary Italian society. Prerequisite: ITAL102 or placement.

ITAL B201 FOCUS: ITALIAN CULTURE AND SOCIETY I

Language and Cultural Studies course with a strong cultural component. It focuses on the wide variety of problems that a post-industrial and mostly urban society like Italy must face today. Language structure and patterns will be reinforced through the study of music, short films, current issues, and even stereotypes. Prerequisite: ITAL 102, or equivalent.

ITAL B207 DANTE IN TRANSLATION

N. Rusin

A reading of the Vita Nuova (Poems of Youth) and The Divine Comedy: Hell, Purgatory and Paradise in order to discover the subtle nuances of meaning in the text and to introduce students to Dante's tripartite vision of the afterlife. Dante's masterpiece lends itself to study from various perspectives: theological, philosophical, political, allegorical, historical, cultural, and literary. Personal journey, civic responsibilities, love, genre, governmental accountability, church-state relations, the tenuous balance between freedom of expression and censorship—these are some of the themes that will frame the discussions. Course taught in English. One additional hour for students who want Italian credit (ITAL 301).

ITAL B208 PETRARCA AND BOCCACCIO IN TRANSLATION

The course will focus on a close analysis of Petrarch's Canzoniere and Boccaccio's Decameron, with attention given also to their minor works and the historical/literary context connected with these texts. Attention will also be given to Florentine literature, art, thought, and history from the death of Dante to the age of Lorenzo de' Medici. Texts and topics available for study include the Trecento vernacular works of Petrarch and Boccaccio; and Florentine humanism from Salutati to Alberti. Course taught in English. One additional hour for students who want Italian credit (ITAL B303)

ITAL B211 PRIMO LEVI, THE HOLOCAUST, AND ITS AFTERMATH

A consideration, through analysis and appreciation of his major works, of how the horrific experience of the Holocaust awakened in Primo Levi a growing awareness of his Jewish heritage and led him to become one of the dominant voices of that tragic historical event, as well as one of the most original new literary figures of post-World War II Italy. Always in relation to Levi and his works, attention will also be given to other Italian women writers whose works are also connected with the Holocaust.

ITAL B212 ITALY TODAY: NEW VOICES, NEW WRITERS, NEW LITERATURE

This course, taught in English, will focus primarily on the works of the so-called "migrant writers" who, having adopted the Italian language, have become a significant part of the new voice of Italy. In addition to the aesthetic appreciation of these works, this course will also take into consideration the social, cultural, and political factors surrounding them. The course will focus on works by writers who are now integral to Italian canon—among them: Cristina Ali-Farah, Igiaba Scego, Ghermandi Gabriella, Amara Lakhous. As part of the course, movies concerned with various aspects of Italian Migrant literature will be screened and analyzed.

ITAL B213 THEORY IN PRACTICE: CRITICAL DISCOURSES IN THE HUMANITIES

An examination in English of leading theories of interpretation from Classical Tradition to Modern and Post-Modern Time. This is a topics course. Course content varies.

ITAL B215 THE CITY OF NAPLES

The city of Naples emerged during the Later Middle Ages as the capital of a Kingdom and one of the most influential cities in the Mediterranean region. What led to the city's rise, and what effect did the city as a cultural, political, and economic force have on the rest of the region and beyond? This course will familiarize students with the art, architecture, culture, and institutions that made the city one of the most influential in Europe and the Mediterranean region during the Late Middle Ages. Topics include court painters in service to the crown, female monastic spaces and patronage, and the revival of dynastic tomb sculpture.

ITAL B219 MULTICULTURALISM IN MEDIEVAL ITALY

A. Harper

This course examines cross-cultural interactions in medieval Italy played out through the patronage, production, and reception of works of art and architecture. Sites of patronage and production include the cities of Venice, Palermo, and Pisa. Media examined include buildings, mosaics, ivories, and textiles.

ITAL B222 FOCUS: READING ITALIAN LITERATURE IN ITALIAN I

The course will read major examples of the short story and novella through several centuries of Italian fiction, including texts written by women writers and immigrant writers. We will read novelle and short stories by Fogazzaro, D'Annunzio, Primo and Carlo Levi, Pasolini, Dacia Maraini, and Antonio Tabucchi. This is a half-semester Focus course.

ITAL B223 FOCUS: READING ITALIAN LITERATURE IN ITALIAN II

The course consists of a close reading in Italian of representative theatrical texts from the contemporary stage to the origins of Italian theater in the 16th century, including pieces by Dario Fo, Luigi Pirandello, Carlo Goldoni, the Commedia dell'arte, and Niccolò Machiavelli. Attention will be paid to the development of language skills through reading out loud, performance, and discussion of both form and content, enhanced by the use of recordings and videos. Attention will also be paid to the development of critical and analytical writing skills through the writing of short reviews and the research and writing of a term paper. This is a half-semester Focus course.

ITAL B225 ITALIAN CINEMA AND LITERARY ADAPTATION

The course discusses how cinema conditions literary imagination and how literature leaves its imprint on cinema. We "read" films as "literary images" and "see" novels as "visual stories." The reading of Italian literary sources is followed by evaluation of the corresponding films by well-known directors, including female directors. We study, through close analysis, such issues as Fascism, nationhood, gender, sexuality, politics, regionalism, death, and family within the European context of World War II and post-war Italy

ITAL B229 FOOD IN ITALIAN LITERATURE, CULTURE, AND CINEMA

N. Rusin

Taught in English. A profile of Italian literature/culture/cinema obtained through an analysis of gastronomic documents, films, literary texts, and magazines. We will also include a discussion of the Slow Food Revolution, a movement initiated in Italy in 1980 and now with a worldwide following, and its social, economic, ecological, aesthetic, and cultural impact to counteract fast food and to promote local food traditions. Course taught in English. One additional hour for students who want Italian credit. Prerequisite: ITAL 102

ITAL B255 UOMINI D'ONORE IN SICILIA: ITALIAN MAFIA IN LITERATURE AND CINEMA

This course explores representations of Mafia figures in Italian literature and cinema, with reference also to Italian-American films, starting from the "classical" example of Sicily. The course introduces students to both Italian Studies from an interdisciplinary prospective and also to narrative fiction, using Italian literature written by 19th-, 20th-, and 21st-century Italian Sicilian authors. Course is taught in Italian. Prerequisite: ITAL B102 or permission of the instructor.

ITAL B299 GRIEF, SEXUALITY, IDENTITY: EMERGING ADULTHOOD

Adolescence is an important time of personality development as a result of changes in the self-concept and the formation of a new moral system of values. Emphasis is on issues confronting the role of the family and peer relationships, prostitution, drugs, youth criminality/gangsters/violence, cultural diversity, pregnancy, gender identity, mental/moral/religious development, emotional growth, alcoholism, homosexuality, and sexual behavior. Prerequisite: ITAL B102.

ITAL B301 DANTE

A reading of the Vita Nuova (Poems of Youth) and The Divine Comedy: Hell, Purgatory and Paradise in order to discover the subtle nuances of meaning in the text and to introduce students to Dante's tripartite vision of the afterlife. Dante's masterpiece lends itself to study from various perspectives: theological, philosophical, political, allegorical, historical, cultural, and literary. Personal journey, civic responsibilities, love, genre, governmental accountability, church-state relations, the tenuous balance between

freedom of expression and censorship—these are some of the themes that will frame the discussions. Prerequisites: At least two 200-level literature courses.

ITAL B303 PETRARCA AND BOCCACCIO

The focus of the course is on The Decameron, one of the most entertaining, beloved, and imitated prose works ever written. Like Dante's Divine Comedy, this human comedy was written not only to delight, but also to instruct by exploring both our spiritual and our natural environment. The Decameron is read in Italian. Attention will also be paid to Petrarca's Canzoniere, of which a small selection will be read in Italian. Topics will include how each author represented women in the context of 14th-century Italy. Prerequisites: At least two 200-level literature courses. Taught in Italian.

ITAL B304 IL RINASCIMENTO IN ITALIA E OLTRE

Students will become familiar with the growing importance of women during the Renaissance, as women expanded their sphere of activity in literature (as authors of epics, lyrics, treatises, and letters), in court (especially in Ferrara), and in society, where for the first time women formed groups and their own discourse. What happens when women become the subject of study? What is learned about women and the nation? What is learned about gender and how disciplinary knowledge itself is changed through the centuries? Prerequisites: At least two 200-level literature courses. Taught in Italian.

ITAL B307 BEST OF ITALIAN LITERATURE

This course focuses on the key role played by Italian culture in the development of the European civilization and Western literature. Many texts found their way to France, Spain, and England, where they were read, translated, and disseminated. This process of assimilation influenced life, language, politics, and literature. Prerequisite: A 200-level course in Italian.

ITAL B310 DETECTIVE FICTION

M. Monserrati

Taught in English. This course explores the detective fiction, today one of the most successful literary genres among readers and authors alike. Through a comparative perspective, the course will analyze not only the inter-relationship between this popular genre and "high literature," but also the role of detective fiction as a mirror of social anxieties. Italian majors taking this course for Italian credit will be required to meet for an additional hour with the instructor and to do the readings and writing in Italian. Prerequisite: One literature course at the 200 level.

ITAL B320 NATIONALISM AND FREEDOM: THE ITALIAN RISORGIMENTO IN FOSCOLO, MANZONI, LEOPARDI

This course deals with 19th century Italian poetry and literary movement for Italian unification inspired by the realities of the new economic and political forces at work after 1815. As a manifestation of the nationalism sweeping over Europe during the nineteenth century, the Risorgimento aimed to unite Italy under one flag and one government. For many Italians, however, Risorgimento meant more than political unity. It described a movement for the renewal of Italian society and people beyond purely political aims. Among Italian patriots the common denominator was a desire for freedom from foreign control, liberalism, and constitutionalism. The course will discuss issues such as Enlightenment, Romanticism, Nationalism, and the complex relationship between history and literature in Foscolo, Manzoni, and Leopardi. This course is taught in Italian. Prerequisite: One 200-level Italian course.

ITAL B322 FOCUS: READING ITALIAN LITERATURE IN ITALIAN III

The focus of the course is on The Decameron, one of the most entertaining, beloved and imitated prose works ever written. Like Dante's divine comedy, this human comedy was written not only to delight, but also to instruct by exploring both our spiritual and our natural environment. Prerequisites: Two years of Italian and at least a 200-level course. Taught in Italian.

ITAL B323 FOCUS: READING ITALIAN LITERATURE IN ITALIAN IV

Attention to Petrarca's Canzoniere, of which a small selection will be read in Italian. Topics will include how the author represented women in the context of 14th-century Italy. Prerequisites: Two years of Italian and at least a 200-level course.

ITAL B330 ARCHITECTURE AND IDENTITY IN ITALY: RENAISSANCE TO THE PRESENT

How is architecture used to shape our understanding of past and current identities? This course looks at the ways in which architecture has

been understood to represent, and used to shape regional, national, ethnic, and gender identities in Italy from the Renaissance to the present. The class focuses on Italy's classical traditions, and looks at the ways in which architects and theorists have accepted or rejected the peninsula's classical roots. Subjects studied include Baroque Architecture, the Risorgimento, Futurism, Fascism, and colonialism. Course readings include Vitruvius, Leon Battista Alberti, Giorgio Vasari, Jacob Burckhardt, and Alois Riegl, among others.

ITAL B340 THE ART OF ITALIAN UNIFICATION

A. Harper

Following Italian unification (1815–1871), the statesman, novelist, and painter Massimo d'Azeglio remarked, "Italy has been made; now it remains to make Italians." This course examines the art and architectural movements of the roughly 100 years between the uprisings of 1848 and the beginning of World War II, a critical period for defining Italiantà. Subjects include the paintings of the Macchiaioli, reactionaries to the 1848 uprisings and the Italian Independence Wars, the politics of 19th-century architectural restoration in Italy, the re-urbanization of Italy's new capital Rome, Fascist architecture and urbanism, and the architecture of Italy's African colonies.

ITAL B380 MODERNITY AND PSYCHOANALYSIS: CROSSING NATIONAL BOUNDARIES IN 20TH CENTURY ITALY AND EUROPE

Designed as an in-depth interdisciplinary exploration of Italy's intellectual life, the course is organized around major literary and cultural trends in 20th century Europe, including philosophical ideas and cinema. We investigate Italian fiction in the global and international perspective, from modernity to Freud and Psychoanalysis, going beyond national boundaries and proposing ethical models across historical times. Prerequisite: One 200-level course in Italian

ITAL B398 SENIOR SEMINAR

N. Rusin

This course is open only to seniors in Italian and in Romance Languages. Under the direction of the instructor, each student prepares a senior thesis on an author or a theme that the student has chosen. By the end of the fall semester, students must have completed an abstract and a critical annotated bibliography to be presented to the department. See Thesis description.

ITAL B399 SENIOR CONFERENCE

N. Rusin

This course is open only to seniors in Italian Studies and Romance Languages. Under the direction of the instructor, each student prepares a senior thesis on an author or a theme that the student has chosen. In April there is an oral defense with members and majors of the Italian Department. See Thesis description.

ITAL B403 SUPERVISED WORK

Offered with approval of the Department.

LATIN AMERICAN, IBERIAN, & LATINO STUDIES

haverford.edu/lais

This concentration is an interdisciplinary program for students majoring in a related discipline who wish to undertake a comprehensive study of the cultures of Spanish America, Brazil, or the Iberian Peninsula (Spain and Portugal). Students supplement a major in one of the cooperating departments (e.g., history, history of art, religion, political science, anthropology, psychology, economics, comparative literature, linguistics or Spanish) with courses that focus on Latin American and Iberian issues and themes.

CONCENTRATION REQUIREMENTS

Six courses and one essay or creative work:

- Competence in Spanish to be achieved no later than the junior year, demonstrated by the completion of at least one course in Spanish at the 200 level or above.

- Spanish/Independent College Programs 240 at Haverford, or General Studies 145 at Bryn Mawr. One of these two courses will be taught every year, alternating between Haverford and Bryn Mawr.

- Four other related courses, two of which must be taken outside the major department; one of these four courses should be at the 300 level. These courses are to be chosen from the offerings listed under the concentration in the Haverford College Catalog or the Course Guide. Students should consult with their advisors as to which courses are most appropriate for their major and special interests: some apply more to Latin America, some to the Iberian Peninsula and others to the United States. Students may have other courses approved to fulfill this requirement if they can demonstrate their pertinence to the concentration. The concentration coordinator will approve courses not listed in the Catalog or Course Guide on a case-by-case basis. These can include courses offered at Bryn Mawr, Swarthmore, the University of Pennsylvania, or in approved study abroad programs.

- A long paper (at least 20 pages) on Latin America, the Iberian Peninsula, or the Latino experience in the United States to be completed no later than the first semester of the senior year, as part of the work for a course in the student's major or the concentration. Whenever possible, the paper should be written while in residence at the College. Students must submit in advance a proposal for the paper topic, accompanied by a bibliography, for the concentration coordinator's approval. Although the topic is open and should reflect the student's interests in a particular discipline, the paper should demonstrate the student's ability to discuss cogently the history, literature, social, or political thought of Latin America or Spain as it applies to the individual student's research project. The concentration coordinator may on a case-by-case basis approve creative works, such as films requiring work comparable to a long paper, to fulfill this requirement.

FACULTY

James Krippner
Professor and Coordinator (on leave 2014–2015)

COURSES AT HAVERFORD

FALL

COML H397 BOLAÑO AND THE LATIN AMERICAN NOVEL (CROSS-LISTED IN SPANISH)

HIST H208 COLONIAL LATIN AMERICA

SPAN H397 BOLAÑO AND THE LATIN AMERICAN NOVEL (CROSS-LISTED IN COMPARATIVE LIT)

SPRING

SPAN H222 RETHINKING LATIN AMERICA IN CONTEMPORARY NARRATIVE

SPAN H240 LATIN AMERICAN AND IBERIAN CULTURE AND CIVILIZATION

SPAN H248 POETRY AND POLITICS IN SPAIN

SPAN H343 THE LATIN AMERICAN CITY AND ITS NARRATIVES

COURSES AT BRYN MAWR

FALL

COML B225 CENSORSHIP: HISTORY IN CONTEXT

COMLB 322 SPANISH QUEENS, NUNS, AND DEVIANTS

COMLB332 NOVELAS DE LAS AMERICAS (CROSS-LISTED AS ENGLB332)

GERM B225 CENSORSHIP

HIST B129 RELIGIOUS CONQUEST IN THE AMERICAS

HIST B327 TOPICS IN EARLY AMERICAN HISTORY: INDIGENOUS PEOPLES

SPAN B110 INTRO ANÁLISIS CULTURAL

SPAN B120 INTRO AL ANÁLISIS LITERARIO

SPANB120 INTRO AL ANÁLISIS LITERARIO: FOR HERITAGE SPEAKERS

SPAN B208 DRAMA Y SOCIEDAD EN ESPANA

SPAN B223 GÉNERO Y MODERNIDAD EN LA NARRATIVA DEL SIGLO XIX

SPAN B322 SPANISH QUEENS, NUNS, AND DEVIANTS

SPAN B3320 NOVELAS DE LAS AMERICAS

SPAN B350 LO FANTASTICO CUENTO HISPANOAM

SPRING

ANTH B200 THE ATLANTIC WORLD, 1492–1800 (CROSS-LISTED AS HIST B20)

ANTH B229 TOPICS IN COMPARATIVE URBANISM: COLONIAL AND POST-COLONIAL REFLECTIONS (CROSS-LISTED AS CITY B229)

HART B229 TOPICS IN COMPARATIVE URBANISM (CROSS-LISTED AS SOCL B230)

SPAN B110 INTRO ANÁLISIS CULTURAL

SPAN B2430 TÓPICOS EN LA LITERATURA HISPANA: AMBICIÓN, MITO Y FANTASÍA

SPAN B265 ESCRITORAS ESPANOLAS

SPAN B323 MEMORIA Y GUERRA CIVIL

SPANB351001 TRADICIÓN Y REVOLUCIÓN

COURSES AT SWARTHMORE

FALL

LASC 006 ETHNIC AND LATINO STUDIES

LASC 010 FYS: BORDERS AND DISORDERS

LASC 090 THESIS

LASC 093 DIRECTED READING

LASC 097 INDEPENDENT STUDY

LINGUISTICS (TRI-CO)
haverford.edu/linguistics

Linguistics is the scientific study of language, the medium that allows us to communicate and share our ideas with others. As a discipline, linguistics examines the structural components of sound, form, and meaning, and the precise interplay between them. Modern linguistic inquiry stresses analytical and argumentation skills, which prepares students for future pursuits in any field in which such skills are essential. Linguistics is also relevant to other disciplines, such as psychology, philosophy, mathematics, computer science, sociology and anthropology, and some of our students choose to double major with one of these.

The primary objectives of the linguistics major are to:
- introduce students to the field of linguistics proper through a series of foundation courses in linguistics theory and methodology
- provide training in the application of theoretical and methodological tools to the analysis of linguistic data, particularly in forming and testing hypotheses, and arriving at conclusions that the data and arguments support
- offer an array of interdisciplinary courses that allow students to explore other related fields, including computational linguistics and neuroscience, that best suit their interests.

LINGUISTICS MAJOR REQUIREMENTS

1. One course or seminar from each of the following categories:
- Sounds: LING H115 at Haverford (HC) or LING045 at Swarthmore (SC)
- Forms: LING H113 at HC or LING050 at SC
- Meanings: LING H114 at HC or LING040 or 026 at SC

2. Course(s) in the structure of a non-Indo-European Language, typically LING215, or LING282 at HC, or LING061, 062, 064 at SC. (Linguistics and Language majors must study two different languages with three credits from each, with at least two credits at the intermediate level.)

3. Two elective courses in Linguistics or related fields.

4. A senior thesis in the fall of the senior year in LING100 (Research Seminar). This thesis constitutes the comprehensive requirement. Students can take the course for one or two credits. If the former, the student should take one more elective course in Linguistics.

LINGUISTICS MINOR REQUIREMENTS

Students may minor in linguistics through Haverford by completing six credits in the following three areas:

A. Mandatory Foundation Courses (three credits):
- LING H113 or LING S050 (Introduction to Syntax)
- LING H114 or LING S040 (Introduction to Semantics)
- LING H115 or LING S045 (Phonetics and Phonology)

B. Structure of a Non-Indo-European Language Courses (choose one):
- LING H215 (Structure of Colonial Valley Zapotec)
- LING H282 (Structure of Chinese)
- LING S060 (Structure of Navajo)
- LING S062 (Structure of American Sign Language)
- LING S064 (Structure of Tuvan)

C. Elective Courses (choose two):
- LING B101 (Introduction to Linguistics)
- LING/ENGL H213 (Inventing [the] English)
- LING/PSYC H238 (The Psychology of Language)
- LING/PHIL H253 (Analytic Philosophy of Language)
- LING/PHIL H260 (Historical Introduction to Logic)
- LING/ANTH B281 (Language in the Social Context)
- LING/CMSC B325 (Computational Linguistics)
- LING/SPAN H365 (The Politics of Language

in the Spanish-Speaking World)
- LING/EAST H382 (Topics in Chinese Syntax and Semantics)

The department accepts all linguistics courses offered at Swarthmore for minor credits for the appropriate categories.

FACULTY

Shizhe Huang
Co-Chair and Associate Professor of Chinese and Linguistics with C.V. Starr Professorship in Asian Studies

Brook D. Lillehaugen
Assistant Professor of Linguistics (Tri-College)

AT SWARTHMORE:

K. David Harrison
Co-Chair, Associate Professor of Linguistics

Theodore Fernald
Professor of Linguistics

Donna Jo Napoli
Professor of Linguistics

Brook D. Lillehaugen
Assistant Professor of Linguistics (Tri-College)

Shelley DePaul
Instructor

Doreen Kelley
Instructor

AFFILIATED FACULTY AT HAVERFORD:

Marilyn Boltz
Professor of Psychology

Danielle Macbeth
T. Wistar Brown Professor of Philosophy

Maud McInerney
Associate Professor of English

Ana López-Sánchez
Assistant Professor of Spanish

AT BRYN MAWR:

Deepak Kumar
Professor of Computer Science

Amanda Weidman
Assistant Professor of Anthropology

Brook D. Lillehaugen
Assistant Professor of Linguistics (Tri-College)

COURSES

101 INTRODUCTION TO LINGUISTICS

An introductory survey of linguistics as a field. This course examines the core areas of linguistic structure (morphology, phonology, syntax, semantics), pragmatics, and language variation in relation to language change. The course provides rudimentary training in the analysis of language data, and focuses on the variety of human language structures and on the question of universal properties.

113 INTRODUCTION TO SYNTAX

Shizhe Huang
This course is a hands-on investigation of sentence structures in human language. This is a participation intensive course. Collectively, the class develops an increasingly complex syntactic theory starting with basic assumptions and seeing where they lead. In the process, students develop skills in observing syntactic patterns and analyzing these patterns in order to come to some generalizations on their own.

114 INTRODUCTION TO SEMANTICS

Shizhe Huang
This course focuses on the study of meaning in human language. We explore semantic issues that arise from the lexicon, the sentences, and the discourse. Along the way, we investigate not only the semantic structure of natural language but also pragmatic factors that affect language use. This is a participation-intensive course. In the process, students will not only learn the basic semantic theory but will also develop skills in observing semantic patterns and analyzing these patterns in order to come to some generalizations on their own.

115 PHONETICS AND PHONOLOGY

Brook Danielle Lillehaugen
This course investigates the sound patterns found in human languages. Phonetics is the study of these patterns from a physical and perceptual perspective while phonology is the study of sound patterns from a cognitive perspective. Activities in the class will expose students to the methodologies used by both perspectives

(articulatory description and acoustic analysis for phonetics and formal theoretical models for phonology) and show the necessity and utility of both approaches in understanding the nature of sound patterns in human language.

282 STRUCTURE OF CHINESE

Shizhe Huang

This course acquaints students with both the syntactic and semantic structures of Mandarin Chinese and the theoretical implications they pose to the study of natural language. Students have an opportunity to further their understanding of linguistic theories and to develop skills in analyzing a non-Indo-European language systematically.

399 SENIOR THESIS SEMINAR

Brook Danielle Lillehaugen

This seminar exposes students to linguistic research methods and guides them through the conceptualization of a topic, the research, and the writing of a senior thesis. All linguistics majors must write their senior thesis in this seminar or LING S100 or S195.

Note: The Senior Thesis Seminar has been offered only at Swarthmore for all Tri-Co seniors in our department up to this point. With the growing number of Bi-Co students majoring in Linguistics, including Linguistics and Language, and with our Tri-Co linguist on tenure track at Haverford, it is now time to offer a section of the thesis seminar at Haverford. The number for the section is capped at 7 because that is the maximum number of theses each faculty member involved in the seminar will be supervising. Swarthmore will keep multiple sections of the seminar. Given our practice of assigning first and second readers of the thesis after senior majors have decided on the thesis topic in the beginning of the fall semester, we envision this section at Haverford as a course "shell," which is open to any senior major in our department, including Swarthmore students, once it is decided that their thesis topic is most closely aligned with Brook Lillehaugen's expertise.

MATHEMATICAL ECONOMICS

Mathematics and economics are complementary disciplines. Most branches of modern economics use mathematics and statistics extensively, and some important areas of mathematical research have been motivated by economic problems. Economists and mathematicians have made important contributions to one another's disciplines. Economist Kenneth Arrow, for example, did path-breaking work in the field of mathematical optimization, and in 1994, Mathematician John Nash was awarded the Nobel Prize in economics for work he did in game theory that has become central to contemporary economic theory. Haverford's area of concentration in mathematical economics (haverford.edu/economics/curriculum/mathematical_economics.php) enables students in both disciplines not only to gain proficiency in the other, but also to appreciate the ways in which they are related.

Students enrolling in the area of concentration in mathematical economics must major in either mathematics or economics.

- A student majoring in economics may choose to pursue either the concentration in mathematical economics or a minor in mathematics, but not both.
- A student majoring in mathematics may choose to pursue either the concentration in mathematical economics or a minor in economics, but not both.
- A student double-majoring in economics and mathematics may not enroll in the area of concentration in mathematical economics.

Economics students with a variety of backgrounds and career interests can benefit from completing the concentration.

- The mathematics courses the concentration requires are extremely valuable for students interested in pursuing graduate study in economics.
- A strong mathematical background is also an asset for students going on to business school or graduate programs in public policy.
- Many economics-related jobs in government, business, and finance require strong quantitative skills, and the concentration prepares students interested in seeking such positions.

The concentration can also benefit mathematics majors.

- Many students find mathematics more exciting and meaningful when they see it applied to a discipline they find interesting and concrete.
- Almost every undergraduate mathematics course covers topics useful in economic applications: optimization techniques in multivariable calculus, quadratic forms in linear algebra, and fixed point theorems in topology.
- In intermediate and advanced courses in economics, mathematics majors can see how these tools and methods are applied in another discipline.

CURRICULUM

Mathematics majors pursuing the concentration take four economics courses that provide a solid grounding in economic theory, as well as two mathematics electives on topics that have important applications in economics. Economics majors in the concentration take four mathematics courses (all beyond the level of mathematics required for all economics majors), and two economics electives that emphasize mathematical reasoning.

CONCENTRATIONS AND MINORS

The concentration in mathematical economics differs from the minors in mathematics and economics in a specific way: it focuses on the complementarities between the two disciplines; the minors in mathematics and economics are designed to provide a basic foundation in each discipline, but not necessarily an inter-disciplinary orientation.

MATHEMATICAL ECONOMICS CONCENTRATION REQUIREMENTS

I. For students majoring in mathematics, the concentration requires six courses:

(A) Three required economics courses:
(i) ECON 105 or 106 (Introduction to Economics). (Students who, with permission of the economics department, place out of ECON 105/106, must replace ECON 105/106 with an economics elective at the 200-level or above.)
(ii) ECON 204 (Economic Statistics with Calculus), or an applied statistics course offered by the economics or mathematics department at an equivalent or higher level
(iii) ECON 300 (Intermediate Microeconomics)
(B) One additional elective in economics at the 200-level or above
(C) Two mathematics electives on topics with significant relevance or applicability to economics. (Students may count these courses toward fulfillment of the mathematics major as well as the mathematical economics area of concentration.)

II. For students majoring in economics, the concentration requires six courses:
(A) Three required mathematics courses:
(i) MATH 121 (Multivariable Calculus) or MATH 216 (Advanced Calculus)
(ii) MATH 215 (Linear Algebra)
(iii) MATH 317 (Analysis I)
(B) One additional elective in mathematics at the 200-level or above
(C) Two economics electives involving significant applications of mathematical methods. (Students may count these courses may be counted toward fulfillment of the economics major as well as the mathematical economics area of concentration.)

MATHEMATICAL ECONOMICS REPRESENTATIVES AND COORDINATORS

Students should consult with the concentration coordinator or the mathematics department representative about selecting the electives for the concentration (parts B and C of the requirements above).

Richard Ball
Associate Professor of Economics, Economics Department Representative and Concentration Coordinator

Lynne Butler
Professor of Mathematics and Statistics, Mathematics Department Representative

MATHEMATICS AND STATISTICS

haverford.edu/mathematics

The courses in the department of Mathematics aim to:

- promote rigorous thinking in a systematic, deductive, intellectual discipline
- present to the student the direction and scope of mathematical development
- foster technical competence in mathematics as an aid to the better comprehension of the physical, biological, and social sciences
- guide and direct the mathematics majors toward an interest in mathematical research.

CURRICULUM

MAJOR

Mathematics majors take a three-year core sequence of courses in calculus, linear algebra, abstract algebra, and analysis, designed to provide a foundation for further study in the major areas of modern mathematics. Students with substantial advanced placement may complete this sequence by the end of their sophomore year. Students who have completed the core sequence may take advanced courses in algebra, analysis, topology, or other special topics. We urge mathematics majors to gain facility in the use of computers, either through the introductory courses Computer Science 105, 106, applied math electives (like Math 210, 218, 222, or 397), or independent work.

Mathematics courses for majors fall into six general categories:
1. Preliminary calculus: Math 113, 114, 115, or advanced placement. Although not listed among the requirements, these are prerequisites for all subsequent courses in mathematics.
2. Intermediate calculus/Linear algebra: Math 215, 121 or 216. These courses benefit both majors and non-majors, but are the real "introduction" to math for most majors.
3. Core major courses: Math 317¬–318: Analysis Math 333-334: Algebra. These courses are the "cornerstone" of the major, introducing many important ideas in which modern mathematics is based, and also sharpening students' skills in mathematical discourse (i.e. careful statements of definitions, theorems, proofs).
4. Intermediate electives
5. Advanced electives
6. Other courses:

- Senior Seminar: A required yearlong course for seniors that involves both independent work with their senior thesis advisor and a group seminar offering advice, support, and practice for seniors in preparing the senior paper and oral presentation.
- Math 460 (Teaching Assistantship in Mathematics): A half-credit course, in which students work closely with a single faculty member in a single course at the 100- or 200-level, offering various kinds of classroom support including problem sessions, review, tutoring, and laboratory assistance. Very good experience for students considering teaching as a career. Open to junior and senior majors by invitation, and may be taken at most twice. Does not count toward the major.

MATHEMATICS MAJOR REQUIREMENTS

1. Math 215, and either Math 121 or Math 216
2. Math 317 and 333, and one of Math 318 or 334
3. Four additional electives in mathematics or approved related courses at the 200-level or higher. At least one of these must be at the 300-level. (Note: Majors using Math 299, Math 399, Math 460, and Math 480 for senior paper preparation may not count these courses toward the requirement.)
4. The senior seminar, Fall and Spring.
5. A senior paper and oral presentation. We strongly advise students planning graduate study in mathematics or related fields to take additional courses at the 300 level.

Majors may substitute equivalent courses in mathematics at Bryn Mawr College for any requirement, subject to advisor approval.

MINOR

Mathematics minors take the same core sequence as do the majors, though not necessarily to the same depth, followed by a selection of electives tailored to the student's interest. Statistics minors take a separate core sequence in probability and statistics, with later flexibility in pursuing either a more applied or a more theoretical track.

MATHEMATICS MINOR REQUIREMENTS

- Math 215 (Linear Algebra) and either Math121 (Multivariable Calculus) or Math216 (Advanced Calculus).
- Math 317 (Analysis I) and Math 333 (Algebra I).
- Two additional electives in mathematics at the 200 level or higher.

Minors may substitute equivalent courses in mathematics at Bryn Mawr College for any requirement, subject to advisor approval.

STATISTICS MINOR REQUIREMENTS

- One of the following courses: Stat 203, Econ 204, Psyc 200, Soci 215
- Stat 286 (Applied Multivariate Statistical Analysis)
- Math 218 (Probability)
- Math 215 (Linear Algebra)
- Math 121 or Math 216 (Multivariable Calculus)
- One of the following:
  - o Stat 328 (Mathematical Statistics)
  - o Stat 396 (Advanced Topics in Probability and Statistics)
  - o Econ 304 (Econometrics)
  - o Sociology 320 (Advanced Quantitative Methods for Sociologists).

CONCENTRATIONS

Mathematics majors can pursue four areas of concentration:

- Computer Science (more theoretical)
- Scientific Computing (more applied)
- Mathematical Economics (for majors interested in applying their skills to economic problems)
- Mathematics Education (for majors interested in teaching mathematics)

For the requirements for these concentrations, see those headings in this catalog or visit the departmental website (haverford.edu/mathematics).

FACULTY

Joshua Sabloff
Department Chair and Associate Professor of Mathematics

Lynne Butler
Professor

Timothy DeVries
Visiting Assistant Professor

Curtis Greene
J. McLain King Professor of Mathematics

David Lippel
Visiting Assistant Professor

Rob Manning
William H. and Johanna A. Harris Associate Professor of Computational Science

Weiwen Miao
Associate Professor

Jeff Tecosky-Feldman
Senior Lecturer

MATHEMATICS COURSES

103 INTRODUCTION TO PROBABILITY AND STATISTICS

Gabriel Feinberg

Basic concepts and methods of elementary probability and quantitative reasoning, with practical applications. Topics include: sample average and standard deviation, normal curves, regression, expected value and standard error, confidence intervals, and hypothesis tests.

105 APPLIED CALCULUS

Jeffrey Tecosky-Feldman

An introduction to aspects of calculus useful in applied work in the natural and social sciences, with a strong emphasis on developing mathematical modeling skills. Topics include differential calculus of functions of one and several variables, differential equations. Applications to biology, economics, and physics.

118 CALCULUS: DYNAMICS AND INTEGRATION

Jeffrey Tecosky-Feldman, Elizabeth Townsend Beazley, David Lippel

A study of the evolution of systems defined by difference and differential equations. Methods

of analysis come from calculus: the limit, the derivative, and the integral from numerical, graphical, and symbolic perspectives.

121 CALCULUS III

David Lippel, Joshua Sabloff, Robert S. Manning, Curtis Greene, Gabriel Feinberg

An introduction to functions of several variables, vector geometry, partial derivatives, maxima & minima, Taylor's Theorem, multiple integrals, line integrals, and Green's and Stokes' Theorem.

199 MATHEMATICS BEYOND CALCULUS

Joshua Sabloff

Half-credit course designed to introduce and convey the flavor of mathematics beyond the introductory core sequence in calculus and linear algebra. A selection of topics will be covered, varying from year to year.

203 STATISTICAL METHOD

Lynne M. Butler

An introduction to statistical methods used to analyze data in the natural and social sciences. It covers descriptive statistics, the binomial and normal distributions, expected value and variance, confidence intervals and hypothesis testing, comparison of two samples, regression, and analysis of variance. A required computer lab, using R, is taught alongside this course.

215 LINEAR ALGEBRA

Curtis Greene, Jeffrey Tecosky-Feldman, Elizabeth Townsend Beazley

An introduction to linear algebra: vector spaces, linear transformations and matrices, determinants, quadratic forms and eigenvalue problems. Applications to differential equations and linear models are discussed.

216 ADVANCED CALCULUS

Jeffrey Tecosky-Feldman

Calculus of several variables: continuous and differentiable functions on Euclidean spaces, extreme value problems, inverse and implicit function theorems, multiple integration, Green's and Stokes' Theorems.

218 PROBABILITY

Weiwen Miao

An introduction to probability theory. Topics include: sample spaces, combinatorics, conditional probability, independence, discrete and continuous random variables, functions of random variables, expected value and variance, the moment generating function, and some basic limit theorems.

222 SCIENTIFIC COMPUTING: CONTINUOUS SYSTEMS

Robert S. Manning

A survey of major algorithms in modern scientific computing, with a focus on continuous problems. Topics include root-finding, optimization, Monte Carlo methods, and discretization of differential equations, with applications in the natural and social sciences.

286 APPLIED MULTIVARIATE STATISTICAL ANALYSIS

Weiwen Miao

An introduction to multivariate statistical analysis. The course includes methods for choosing, fitting, and evaluating multiple regression models and analysis of variance models. A required computer lab, using R, is taught alongside this course.

317 ANALYSIS I

Joshua Sabloff

A rigorous development of topics in calculus, including detailed treatment of the axioms of the real number line, cardinality, topology of normed spaces, compactness, and various notions of convergence. This course also serves as a thorough introduction to clear, correct writing of mathematical proofs.

318 ANALYSIS II

Joshua Sabloff

A continuation of MATH 317, focusing particularly on sequences and series of functions with applications (e.g., Fourier series, existence and uniqueness of solutions to differential equations). Other advanced topics (such as measure theory, the Lebesgue integral, calculus of variations, Fourier transforms, approximation theorems or fixed point theorems) are included according to instructor and student interest.

333 ALGEBRA I

Gabriel Feinberg

A rigorous treatment of fundamental algebraic structures. Topics include: axioms for integers, modular arithmetic, polynomials, rings, fields, and introduction to groups.

334 ALGEBRA II

Elizabeth Townsend Beazley

A continuation of MATH 333. Topics include: Sylow's theorems for groups, finite abelian groups, finite fields, Galois theory, modules, and advanced linear algebra.

340 ANALYSIS OF ALGORITHMS

Sorelle A. Friedler

345 THEORY OF COMPUTATION

Steven Lindell

Introduction to the mathematical foundations of computer science: finite state automata, formal languages and grammars, Turing machines, computability, unsolvability, and computational complexity.

360 MATHEMATICAL ECONOMICS

Giridhar Parameswaran

A study of advanced mathematical tools used in economic analysis. Topics include eigenvalues and quadratic forms, differential equations, convex programming and dynamic programming. Applications to consumer theory, generalized linear regression, stability of equilibrium, and models of growth and search. Fulfills Mathematic Economics (MTEC) concentration.

392 ADVANCED TOPICS ANALYSIS AND GEOMETRY

Robert S. Manning

Past topics include "Complex analysis"

394 ADVANCED TOPICS IN THEORETICAL COMPUTER SCIENCE AND DISCRETE MATHEMATICS

Lynne M. Butler, David Lippel

396 ADVANCED TOPICS IN PROBABILITY AND STATISTICS

Lynne M. Butler

397 ADVANCED TOPCS IN APPLIED MATHEMATICS

Robert S. Manning

Past topics include "Dynamical systems and chaos" (Spring 2009, taught by R. Manning), "Partial Differential Equations" (Spring 2011, taught by R. Manning)

399 SENIOR SEMINAR

Elizabeth Townsend Beazley, Lynne M. Butler, Curtis Greene, Robert S. Manning, Gabriel Feinberg, Joshua Sabloff

Seminar for students writing senior papers, dealing with the oral and written exposition of advanced material.

STATISTICS COURSES

103 INTRODUCTION TO PROBABILITY AND STATISTICS

Gabriel Feinberg

Basic concepts and methods of elementary probability and quantitative reasoning, with practical applications. Topics include: sample average and standard deviation, normal curves, regression, expected value and standard error, confidence intervals, and hypothesis tests.

203 STATISTICAL METHODS

Lynne M. Butler

An introduction to statistical methods used to analyze data in the natural and social sciences. It covers descriptive statistics, the binomial and normal distributions, expected value and variance, confidence intervals and hypothesis testing, comparison of two samples, regression, and analysis of variance. A required computer lab, using R, is taught alongside this course.

286 MULTIVARIATE STATISTICS

Weiwen Miao

An introduction to multivariate statistical analysis. The course includes methods for choosing, fitting, and evaluating multiple regression models and analysis of variance models. A required computer lab, using R, is taught alongside this course.

328 MATHEMATICAL STATISTICS

Weiwen Miao

An introduction to mathematical theory of statistics. Topics include: Estimation, Hypothesis Testing, one-sample inference, two-sample inference, and regression. Additional topics may include goodness-of-fit tests and analysis of variance.

COURSES OFFERED AT BRYN MAWR

FALL

101 CALCULUS I

102 CALCULUS II

104 ELEMENTS OF PROBABILITY AND STATISTICS

201 MULTIVARIABLE CALCULUS

225 INTRODUCTION TO FINANCIAL MATHEMATICS

231 DISCRETE MATHEMATICS I

251 CHAOTIC DYNAMICAL SYSTEMS

301 INTRODUCTION TO REAL ANALYSIS

303 ABSTRACT ALGEBRA

312 TOPOLOGY I

395 RESEARCH SEMINAR

398 SENIOR CONFERENCE

403 SUPERVISED WORK

501 GRADUATE REAL ANALYSIS I

701 SUPERVISED WORK

SPRING

102 CALCULUS II WITH ANALYTIC GEOMETRY

104 ELEMENTS OF PROBABILITY AND STATISTICS

203 LINEAR ALGEBRA

206 TRANSITION TO HIGHER MATHEMATICS

210 DIFFERENTIAL EQUATIONS WITH APPLICATIONS

231 DISCRETE MATHEMATICS I

290 ELEMENTARY NUMBER THEORY

295 SELECT TOPICS IN MATHEMATICS

302 REAL ANALYSIS II

304 ABSTRACT ALGEBRA II

311 PARTIAL DIFFERENTIAL EQUATIONS

396 RESEARCH SEMINAR

399 SENIOR CONFERENCE

403 SUPERVISED WORK

502 GRADUATE REAL ANALYSIS II

505 GRADUATE TOPOLOGY I

MIDDLE EASTERN AND ISLAMIC STUDIES

haverford.edu/meis

The concentration in Middle Eastern and Islamic Studies (MEIS) gives students basic knowledge of the Middle East and broader Muslim world, and allows students to employ discipline-specific tools for advanced work in this area.

We strongly encourage students with interests in the Middle East and Islam to meet with the concentration coordinator early in their college program (during their first and second years). We also invite students to take advantage of Haverford's study abroad programs in Egypt, Morocco, and other appropriate locations to advance their work in the concentration.

CURRICULUM

An "Area of Concentration" at Haverford is designed to facilitate a student pursuing an area of study distinct from her major, but which he or she can use the disciplinary tools of the major to pursue. To that end, at least two courses, and no more than three, may fulfill both the student's major requirements and the concentration requirements. In practical terms, this means that students who want to concentrate in Middle Eastern and Islamic Studies usually major in anthropology, comparative literature, history, political science, religion, or sociology.
In some cases, students may find that they can combine other majors with a concentration in MEIS (for example, History of Art and Growth and Structure of Cities at Bryn Mawr are two departments that sometimes have two or three course offerings that could count for Middle Eastern and Islamic Studies). Students who can demonstrate that at least two courses in their major are about Middle Eastern and Islamic Studies can petition the concentration coordinator and faculty to approve their major.
In addition to the Haverford Middle Eastern and Islamic Studies proposal, students may choose to concentrate in Middle East Studies at Bryn Mawr, or minor in Islamic Studies at Swarthmore. The Bryn Mawr Middle East Studies concentration has two key differences from the Haverford program: they offer an option to concentrate without language work, and they require study of the pre-Islamic period.

The Swarthmore Islamic Studies program differs from the Haverford program in that it is a stand-alone minor, rather than a concentration. Students may count only one course in the student's major toward the Islamic Studies minor. Swarthmore's Islamic Studies minor can include instruction in kathak, a form of classical Indian dance.

CONCENTRATION REQUIREMENTS

A. Students must demonstrate competence above the intermediate level in a language pertinent to their area of research.
• In cases where a student has selected Arabic as his or her relevant language, this means completion of ARABB004.
• If a student is doing research for which another language is more appropriate, he or she may need to study at the University of Pennsylvania (Pashtu, Persian, Turkish and Swahili) or Bryn Mawr (Hebrew), or take other Haverford language classes (e.g., Chinese, French).
Some study abroad programs are also suitable for gaining language competence. Students should consult with the Concentration Coordinator about the course of language study to fill this requirement.

B. Students must take two of the courses listed below, in which they learn about the Middle East and Islam (see section B, below). Students must choose from two of the three departments listed (e.g., history and political science, history and religion, political science and religion). Students should consult the concentration coordinator to ensure they fill this requirement.

By completing this core requirement, students gain broad exposure to the history and politics of

the Middle East, and to Islam as a major world religion and social and political force that began in, and continues to be affected by, the Middle East.

The core course options are:

1. History:
   HIST 117 (Modern Mediterranean History)
   HIST 266 (Sex and Gender in the Early Modern Islamic World)
   HIST 270 (From Empire to Nation: The Ottoman World Transformed)
2. Political Science:
   POLS 256 (The Evolution of Jihadi Movement)
   POLS 357 (Conflict in the Middle East)
3. Religion:
   RELG 108 (Vocabularies of Islam)
   RELG 218 (The Divine Guide: An Introduction to Shi'ism)
   RELG 248 (The Qur'an)

C. Students should pursue areas of inquiry related to the Middle East and/or Islam and specific to their interests by taking four electives, at least one of which is at the 300 level. Examples might include anthropological approaches to the study of Islam or Middle East, the art of the Muslim world, Islam in African politics, medieval Persian history, Jihadi movements, the Iranian Revolution, modern Arabic literature, etc.

Students must select the four elective courses from the following Haverford departments: Anthropology; ICPR/Art History; History; Peace Justice and Human Rights; Political Science; Religion; Sociology; or Spanish/Comparative Literature. A minimum of one course must be at the 300 level (or the equivalent).

COURSES AT HAVERFORD THAT FULFILL THE MEIS ELECTIVE REQUIREMENT INCLUDE:

1. Anthropology:
   ANTH 241 (Anthropology of the Mediterranean)
   ANTH 259 (Ethnographies of Islam)
   ANTH 361 (Advanced Topics in Ethnographic Area Studies: Middle Eastern Nationalisms)
2. ICPR/Art History
   ICPR 204/PEAC 204 (Picturing War: Goya to Abu Ghraib)
   ICPR 237 (Art and Cultural Identity)
3. History
   HIST 117 (Modern Mediterranean History)
   HIST 266 (Sex and Gender in the Early Modern Islamic World)
   HIST 270 (From Empire to Nation: The Ottoman World Transformed)
4. Peace, Justice, and Human Rights
   PEAC 304 (Cosmopolitanism and Toleration in Enlightenment Europe)
5. Political Science
   POLS 151 (International Politics)
   POLS 253 (Introduction to Terrorism Studies)
   POLS 256 (The Evolution of the Jihadi Movement)
   POLS 333 (International Security)
   POLS 345 (Islam, Democracy and Development)
   POLS 357 (Conflict in the Middle East)
   POLS 358 (The War on Terrorism)
6. Religion
   RELG 108 (Vocabularies of Islam)
   RELG 118 (Hebrew Bible: Literary Text and Historical Context)
   RELG 203 (The Hebrew Bible and Its Interpretations)
   RELG 212 (Jerusalem: City, History and Representation)
   RELG 218 (The Divine Guide: An Introduction of Shi'ism)
   RELG 248 (The Qur'an)
   RELG 306 (Of Monsters and Marvels: Wonder in Islamic Traditions)
   RELG 307 (Imaging Islam: Icon, Object, and Image)
   RELG 308 (Mystical Literatures of Islam)
7. Sociology
   SOCL 207 (Internal Disorder: Deviance and Revolution)
   SOCL 233 (Topics in Sociology: Islamic Modernism)
   SOCL 237 (Topics in Historical Sociology)
   SOCL 298 (Law and Sociology)
8. Spanish/Comparative Literature
   SPAN 266 (Iberian Orientalism and the Nation)
   SPAN 340 (The Moor in Spanish Literature)

To fulfill their elective credit, students may select from a list of designated electives at Bryn Mawr and Swarthmore (see below), or request approval from the concentration coordinator to take other appropriate courses at Bryn Mawr, Swarthmore, or the University of Pennsylvania's Near Eastern

Languages and Civilizations Program. Students may also petition the Concentration Coordinator and MEIS faculty for approval of a course that is not on the electives list but which the student feels provides important content for his or her specific research topic.

D. Students must write a thesis in their major department (Anthropology, History, Political Science, Religion or Sociology) that addresses Middle Eastern and Islamic Studies and that the concentration coordinator (as well as the major advisor) approves. The concentration coordinator must approve this thesis topic in advance to count for the MEIS concentration. To request approval, students should submit a brief (one page) thesis proposal to the concentration coordinator, Barak Mendelsohn, and arrange a meeting to discuss the proposal.

CONCENTRATION COORDINATOR

The Concentration Coordinator serves as the primary faculty resource for all students interested in Middle Eastern and Islamic Studies. Barak Mendelsohn, Associate Professor of Political Science, is the advisor for all students who choose to concentrate in MEIS. The coordinator:

• meets with all students who have questions about the concentration, curriculum, study abroad related to the Middle East and/or Islam, language work, research internships, summer programs, and other student opportunities related to this area.

• organizes meetings of MEIS faculty, is the point person for events that publicize and advance the mission of the concentration (such as lectures, workshops, symposia, film screenings and artistic residencies), and ensures that student concentrators select thesis topics that are appropriate.

• informs him/herself about study abroad programs that are useful for MEIS concentrators and works with the Dean of Global Affairs to help students select programs and ensure that the College maintains sufficient study abroad opportunities to support the concentration.

• maintains the MEIS website.

FACULTY

MEIS faculty introduce students to the concentration. When appropriate, MEIS faculty will talk about the concentration in their classes and about events that support the concentration. MEIS faculty consult with Barak Mendelsohn about the program, including curriculum, expansion positions, summer opportunities for students, language study and pertinent programs at other area institutions that support the concentration.

COURSES

ANTH 241 ANTHROPOLOGY OF THE MEDITERRANEAN
L.Hart

ANTH 259 ETHNOGRAPHY OF ISLAM SO
M.Gillette

ANTH 316 GENDER & SEXUALITY IN THE MIDDLE EAST
Zainab Saleh

ANTH 361 ADVANCED TOPICS IN ETHNOGRAPHIC AREA STUDIES: NATIONAL IMAGINARIES OF THE MIDDLE EAST. SO
Z.Saleh

HIST 117 MODERN MEDITERRANEAN HISTORY
Alexander Kitroeff

HIST 266 SEX AND GENDER IN THE EARLY MODERN ISLAMIC WORLD
F. Azfar

HIST 270 FROM EMPIRE TO NATION: THE OTTOMAN WORLD TRANSFORMED
A.Kitroeff

HIST 274 HISTORY OF THE MODERN MIDDLE EAST
S. Helfont

ICPR 204 PICTURING WAR: GOYA TO ABU GHRAIB
Carol Solomon

ICPR 236 ART, POLITICS, AND SOCIETY IN NINETEENTH-CENTURY EUROPE HU
C.Solomon

ICPR 237 ART AND CULTURAL IDENTITY HU
C.Solomon

ICPR 303 CURATORIAL PRAXIS: THE MAKING OF AN EXHIBITION
C.Solomon

ICPR 325 CONTEMPORARY ART OF THE ARAB WORLD, IRAN AND TURKEY
C. Solomon

PJHR 304 COSMOPOLITANISM AND TOLERATION IN ENLIGHTENMENT EUROPE
F. Azfar

POLS 151 INTERNATIONAL POLITICS (I)
B. Mendelsohn

POLS 253 INTRODUCTION TO TERRORISM STUDIES
Barak Mendelsohn

POLS 256 THE EVOLUTION OF THE JIHADI MOVEMENT (I)
B. Mendelsohn

POLS 333 INTERNATIONAL SECURITY
B. Mendelsohn

POLS 345 ISLAM, DEMOCRACY AND DEVELOPMENT
S. Wing

POLS 357 INTERNATIONAL RELATIONS THEORY: CONFLICT AND THE MIDDLE EAST
Barak Mendelsohn

POLS 358 THE WAR ON TERRORISM (I)
B arak Mendelsohn

RELG 108 VOCABULARIES OF ISLAM
Jamel Velji

RELG 118 HEBREW BIBLE: LITERARY TEXT AND HISTORICAL CONTEXT HU
Naomi Koltun-Fromm

RELG 150 SOUTH ASIAN RELIGIOUS CULTURES
Chloe Martinez

POLS 151 INTERNATIONAL POLITICS
Barak Mendelsohn

RELG 202 THE END OF THE WORLD AS WE KNOW IT
Jamel Velji

RELG 203 THE HEBREW BIBLE AND ITS INTERPRETATIONS [A,B] HU
Naomi Koltun-Fromm

RELG 212 JERUSALEM: CITY, HISTORY AND REPRESENTATION
Naomi Koltun-Fromm

RELG 218 THE DIVINE GUIDE: AN INTRODUCTION TO SHI'ISM
Travis Zadeh

RELG 248 THE QUR'AN HU (CROSS-LISTED IN COMPARATIVE LITERATURE)
Travis Zadeh

RELG 303 SEMINAR B: RELIGION AND TRANSLATION
Travis Zadeh

RELG 306 OF MONSTERS AND MARVELS: WONDER IN ISLAMIC TRADITIONS
Travis Zadeh

RELG 307 IMAGINING ISLAM: ICON, OBJECT, AND IMAGE HU
Travis Zadeh

RELG 308 MYSTICAL LITERATURES OF ISLAM HU (CROSS-LISTED IN COMPARATIVE LITERATURE AND GENDER AND SEXUALITY STUDIES)
Travis Zadeh

SOCL 207 INTERNAL DISORDER: DEVIANCE AND REVOLUTION
M.Gould

SOCL 233 TOPICS IN SOCIOLOGY: ISLAMIC MODERNISM
M.Gould

SOCL 237 TOPICS IN HISTORICAL SOCIOLOGY
M.Gould

SOCL 298 ISLAMIC CONSTITUTIONALISM

SPAN 266 IBERIAN ORIENTALISM AND THE NATION HU
I. Burshatin

SPAN 340 THE MOOR IN SPANISH LITERATURE
I. Burshatin

MEIS-APPROVED ELECTIVE COURSES AT SWARTHMORE:

FREN 045 FRANCE AND THE MAGHREB: POSTCOLONIAL WRITING IN A TRANSNATIONAL CONTEXT

HIST 006A FORMATION OF THE ISLAMIC NEAR EAST

HIST 006B THE MODERN MIDDLE EAST

HIST 025 COLONIALISM AND NATIONALISM IN THE ARAB MIDDLE EAST

HIST 018 CITIES OF THE MIDDLE EAST

HIST 111 CHRISTIANS, MUSLIMS AND JEWS IN THE MEDIEVAL MEDITERRANEAN

LITR 076 FEMALE AUTHORS FROM THE ARAB WORLD

RELG 008 THE QUR'AN AND ITS INTERPRETERS

RELG 119 ISLAMIC LAW AND SOCIETY

RELG 053 GENDER, SEXUALITY AND THE BODY IN ISLAMIC DISCOURSES

RELG 054 POWER AND AUTHORITY IN MODERN ISLAM

SOAN 009 CULTURES OF THE MIDDLE EAST

MEIS-APPROVED ELECTIVE COURSES AT BRYN MAWR:

ANTH 261 PALESTINE AND ISRAELI SOCIETY

ANTH 275 CULTURES AND SOCIETIES OF THE MIDDLE EAST

ANTH 276 ISLAM IN EUROPE

ANTH 382 RELIGIOUS FUNDAMENTALISM IN THE GLOBAL ERA

CITY 248 MODERN MIDDLE EAST CITIES

GNST 158 THEMES IN MIDDLE EASTERN SOCIETY

HART 212 MEDIEVAL ARCHITECTURE: ISLAMIC CITIES

HEBR 110 ISRAELI CINEMA

HEBR 283 INTRODUCTION TO THE POLITICS OF THE MODERN MIDDLE EAST AND NORTH AFRICA

HIST 283 INTRODUCTION TO THE POLITICS OF THE MODERN MIDDLE EAST AND NORTH AFRICA

HIST 288 THE POLITICAL ECONOMY OF THE MIDDLE EAST AND NORTH AFRICA

POLS 282 THE EXOTIC OTHER: GENDER AND SEXUALITY IN THE MIDDLE EAST

POLS 383 TWO HUNDRED YEARS OF ISLAMIC REFORM, RADICALISM AND REVOLUTION

MUSIC
haverford.edu/music

The music curriculum is designed to deepen students' understanding of musical form and expression through the development of skill in composition and performance joined with analysis of musical works and their place in various cultures. A major in music provides a foundation for further study leading to a career in music.

As a result of having majored in our department (haverford.edu/music), students exhibit proficiency in various skills appropriate to a specific area of the curriculum as listed below. But beyond such competence, we seek to develop their awareness of aesthetics and of their place in the history of musical performance, craft, and scholarship. It is not enough to be original—to succeed the student must understand how their originality fits into a large chain of ideas, whether in the recital hall, composition studio, or research library.

COMPOSITION/THEORY

The composition/theory program stresses proficiency in aural, keyboard, and vocal skills, and written harmony and counterpoint. Composition following important historical models and experimentation with contemporary styles are emphasized.

MUSICOLOGY

The musicology program, which emphasizes European, North American, and Asian traditions, considers music in the rich context of its social, religious, and aesthetic surroundings.

PERFORMANCE

Haverford's Music Program offers opportunities to participate in the Haverford-Bryn Mawr Chamber Singers, Chorale, Orchestra, and Chamber ensembles.

Students can receive academic credit for their participation. (MUSC 102, 214, 215, 216, and 219), and can receive credit for Private Study (Music 208 for Instrumental Study, Music 209 for Voice Study, and Music 210 for Piano and Organ Study).

Student Chamber ensembles, solo instrumentalists, and vocalists also give informal recitals during the year. Courses such as Art Song and Topics in Piano have a built in performance component.

PRIVATE LESSONS

Students can arrange private music lessons through the department or independently. We have a referral list of many fine teachers in the Philadelphia area with whom we are in contact. The department helps to subsidize the cost of lessons for students with financial need who are studying for academic credit.

CURRICULUM

MAJOR REQUIREMENTS

1. Composition/Theory: MUSC 203, 204, 303
2. Musicology: Three courses, MUSC 229, plus any two of MUSC 220, 221, 222, 223, 224, 225, or 325
3. Two electives in music, from: MUSC 207, 220, 221, 222, 223, 224, 225, 246, 250, 251, 265, 266, 304, and 325.
4. Performance:
   - Participation in a department-sponsored performance group for at least a year.
   - MUSC 208, 209, or 210 instrumental or vocal private study for one year.
   - We strongly urge continuing ensemble participation and instrumental or vocal private study.
5. A Senior Project.

The format of the senior experience is determined prior to the beginning of the student's senior year, after consultation with the department. Students may fulfill the senior experience in music through:

- an independent study project (usually a composition, performance, or research paper pursued in the context of MUSC 480) or
- a regular advanced course enhanced to include an independent study component.

6. We expect majors to attend the majority of department-sponsored concerts, lectures, and colloquia.

MINOR REQUIREMENTS

1. Composition/Theory: MUSC 203 and 204
2. Musicology: 229; plus any one of 220, 221, 222, 223, 224, 225, or 325
3. One elective from the following: MUSC 207, 220, 221, 222, 223, 224, 225, 246, 250, 251, 265, 266, 303, 304, and 325
4. MUSC 208, 209, 210 instrumental or vocal private study or department ensemble participation for one year
5. We expect minors to attend the majority of department-sponsored concerts, lectures, and colloquia.

THE SENIOR PROJECT

Music students should demonstrate focused achievement in one or more of the three principal areas of the music curriculum:

- performance
- musicology
- composition/theory.

Majors fulfill this requirement in one of two ways:

- taking a regular full-credit music course, the additional work for which will challenge the student's knowledge and skills acquired in previous studies; or
- pursuing an independent project, usually a solo recital, a research project, or an original composition in the context of Music 480 (Independent Study), culminating in a public presentation in the spring semester of senior year.

REQUIREMENTS FOR HONORS

DEPARTMENTAL HONORS:

- minimum GPA in music courses of 3.7, AND grade on senior project of 4.0

DEPARTMENTAL HIGH HONORS:

- Outstanding, standard-setting contribution to the department in the context of courses and/or ensembles
- Exceptional level of originality, depth, and synthesis in the senior project as compared to undergraduate work generally, outside Haverford (i.e., a level of work that should be sufficient to gain admission to top graduate programs in the field)

FACILITIES

The Department carries out its activities at two locations on campus. Our principal space, Union Music Building, houses offices for faculty and staff, two main classrooms, and the intimate MacCrate Recital Hall, the Music Library and listening room, a choral and orchestral library, and areas for storage of instruments and equipment. The classrooms are outfitted with high-end playback equipment, overhead and video capability, and are digitally equipped for laptop projection and online access. The Department also manages and utilizes Marshall Auditorium of Roberts Hall, which stands adjacent. Marshall is a location for rehearsals and concerts, especially those involving larger ensembles and audiences. There are additional practice rooms and teaching spaces in the basement of Marshall. The stage is outfitted with both flexible and fixed lighting arrays, adaptable to a variety of performance activities large and small.

For details on instruments, student funding opportunities, and other programs, please visit the department website (haverford.edu/music).

FACULTY

Curtis Cacioppo
Department Chair (fall 2014),
Ruth Marshall Magill Professor of Music

Ingrid Arauco
Department Chair (spring 2015),
Professor of Music

Richard Freedman
John C. Whitehead Professor of Music

Heidi Jacob
Associate Professor of Music and Director of the Orchestral and Instrumental Studies

Thomas Lloyd
Professor of Music and Director of Choral and Vocal Studies

COURSES

102 CHORALE

Thomas Lloyd

Chorale is a large mixed chorus that performs major works from the oratorio repertoire with orchestra. Attendance at weekly two-hour rehearsals and dress rehearsals during performance week is required. Entrance by audition. Students can start Chorale at the beginning of any semester.

103F RUDIMENTS OF MUSIC

Leonardo Dugan

A half-credit course designed to develop proficiency in reading treble and bass clefs; recognizing intervals, scales, modes, and chords; and understanding rhythm and meter, basic progressions and cadence patterns, tempo and dynamic indications, and articulation and expression markings. The class emphasizwa practical skills of singing at sight, notating accurately what is heard, and gaining basic keyboard familiarity.

107 INTRODUCTORY PIANO

Christine Cacioppo

An introduction to music and the art of playing the piano. The course consists of a weekly hour-long session on Tuesday evenings (lecture, directed listening, or playing workshop) plus an individual lesson of 20 minutes at an arranged time. It is expected that the student practices an hour each day, 6 days a week, and keeps a listening journal, which consists of personal responses to the music, as well as a page of research on a topic related to each listening assignment. The final exam is a performance of two or more short works on the class recital at the end of the term. Enrollment limited to 16 students, with 5 spaces reserved for majors/minors.

149B NATIVE AMERICAN MUSIC AND BELIEF

Curtis Cacioppo

Class surveys the principal styles of Native North American singing in ceremonial and secular contexts; discusses contemporary Indian musical cross-overs and the aesthetic of multi-culturalism; and emphasizes class participation in singing traditional Indian songs. Satisfies the Social Justice requirement.

203A PRINCIPLES OF TONAL HARMONY

Leonardo Dugan

The harmonic vocabulary and compositional techniques of Bach, Haydn, Mozart, Beethoven, Schubert, and others. Emphasis is on composing melodies, constructing phrases, and harmonizing in four parts. Composition of minuet and trio, set of variations, or other homophonic piece is the final project. Requires three class hours plus laboratory period covering related aural and keyboard harmony skills.

204B PRINCIPLES OF TONAL HARMONY II

Curtis Cacioppo

Continuation of Music 203, introducing chromatic harmony and focusing on the development of sonata forms from the Classical through the Romantic period. Composition of a sonata exposition is the final project. Requires three class hours plus laboratory period covering related aural and keyboard harmony skills.

207A TOPICS IN PIANO

Curtis Cacioppo

Combines private lessons and studio/master classes, musical analysis, research questions into performance practice and historical context, and critical examination of sound recorded sources. Requires preparation of works of selected composer or style period for end-of-semester class recital.

208 PRIVATE STUDY: INSTRUMENTAL

Heidi Carolyn Jacob

All students enrolled in the private study program should be participating in a departmentally directed ensemble or activity (Chorale, Orchestra, etc.) as advised by their program supervisor. All students in the private study program perform for a faculty jury at the end of the semester. Students assume the cost of their private lessons, but may apply for private study subsidies at the beginning of each semester's study through the department.

209 PRIVATE STUDY: VOICE

Thomas Lloyd

10 hour-long voice lessons with approved teachers for 1/2 credit, graded. Jury exam at end of semester. Must participate in Chorale or Chamber Singers the same semester to be eligible for credit or partial subsidy for cost of lessons, which is not covered by tuition.

210 PRIVATE STUDY: KEYBOARD
Curtis Cacioppo

214 CHAMBER SINGERS
Thomas Lloyd
A 30-voice mixed choir that performs a wide range of mostly a cappella repertoire from the Renaissance to the present day, in original languages. Requires sttendance at three 80-minute rehearsals weekly.

215 CHAMBER MUSIC
Heidi Carolyn Jacob
Intensive rehearsal of works for small instrumental groups, with supplemental assigned research and listening. Performance is required. The course is available to those who are concurrently studying privately, or who have studied privately immediately prior to the start of the semester.

216 ORCHESTRA
Heidi Carolyn Jacob
For students participating in the Haverford-Bryn Mawr Orchestra, this course addresses the special musical problems of literature rehearsed and performed during the semester.

223A CLASSICAL STYLES
Richard Freedman
The music of Beethoven Haydn, Mozart, and Schubert, among others. Classroom assignments lead students to explore the origins and development of vocal and instrumental music of the years around 1800 and to consider the ways in which musicologists have approached the study of this repertory. Prerequisite: Music 110, 111, or permission of instructor. (Freedman, Division III)

224B ROMANTIC MUSIC
Richard Freedman

227B JAZZ AND THE POLITICS OF CULTURE
Richard Freedman

229A THINKING ABOUT MUSIC
Richard Freedman
Core concepts and perspectives for the serious study of music. Students explore music, meaning, and musicological method in a variety of contexts through a set of six foundational themes and questions: Music and the Idea of Genius; Who Owns Music?; Music and Technology; The Global Soundscape; Music and the State; and Tonality, Sense, and Reason. Each unit uses a small number of musical works, performances, or documents as a focal point. In each unit we also read current musicological work in attempt to understand the methods, arguments, and perspectives through which scholars interpret music and its many meanings.

266B COMPOSITION
Ingrid Arauco
An introduction to the art of composition through weekly assignments designed to invite creative, individual responses to a variety of musical ideas. Scoring for various instruments and ensembles, and experimentation with harmony, form, notation, and text setting. Weekly performance of student pieces; end-of-semester recital. Prerequisite: Music 203 or permission of instructor. (Arauco, Division III)

303A ADVANCED TONAL HARMONY
Curtis Cacioppo
Study of late 19th-century harmonic practice in selected works of Liszt, Wagner, Brahms, Faure, Wolf, Debussy, and Mahler. Exploration of chromatic harmony through analysis and short exercises; final composition project consisting of either art song or piano piece such as nocturne or intermezzo. Musicianship lab covers related aural and keyboard harmony skills.

304B COUNTERPOINT
Ingrid Arauco
18th-century contrapuntal techniques and forms with emphasis on the works of J. S. Bach. Canon; composition of two-part invention; fugal writing in three parts; chorale prelude; and analysis. Three class hours plus laboratory period covering related aural and keyboard harmony skills.

480 INDEPENDENT STUDY
Ingrid Arauco/Curtis Cacioppo/ Richard Freedman/ Heidi Carolyn Jacob/Yoon Jae Lee/Thomas Lloyd

NEUROSCIENCE MINOR

haverford.edu/neuroscience

The desire to understand human and animal behavior in terms of nervous system structure and function is longstanding. Historically, researchers and scholars have approached this task from a variety of disciplines, including medicine, biology, psychology, philosophy, and physiology. The field of neuroscience emerged as an interdisciplinary approach, combining techniques and perspectives from these disciplines, as well as emerging fields such as computation and cognitive science, to yield new insights into the workings of the nervous system and behavior.

The goals of the minor include enabling students to gain:

- a basic understanding of the organization of the nervous system and its relation to categories of behavior such as motor control, sensation and perception, motivational states, and higher cognition.
- an appreciation of and fluency with the many levels at which the nervous system can be studied, including molecular, cellular, systems, behavioral and cognitive neuroscience levels.
- an appreciation of the interdisciplinary nature of neuroscience and the allied disciplines that inform the study of mind, brain, and behavior.
- an ability to closely examine and critically evaluate primary research on specialized, advanced neuroscience topics.

The minor in neuroscience allows students with any major to pursue interests in behavior and the nervous system across disciplines. Students should consult with the faculty coordinator or any member of the advisory committee in order to declare the minor.

MINOR REQUIREMENTS

1. HC Psych 217 (Biological Psychology) or BMC Psych 218 (Behavioral Neuroscience) or BMC Bio 202 (Introduction to Neuroscience).
2. Five credits from the following lists, with these constraints:

a. The five credits must sample from three different disciplines.
b. At least three of the five credits must be from List A (neuroscience courses).
c. At least one of the credits must be at the 300-level or higher.
d. One of the five credits may come from supervised senior research in neuroscience.
e. Students may count no more than two of the six minor credits towards his or her major.

FACULTY

AT HAVERFORD:

Rebecca Compton
Professor of Psychology & Neuroscience
Coordinator

Andrea Morris
Associate Professor of Biology

ADVISORY COMMITTEE AT BRYN MAWR COLLEGE:

Peter D. Brodfuehrer
Professor of Biology

Karen F. Greif
Professor of Biology

Leslie Rescorla
Professor of Psychology

Anjali Thapar
Professor of Psychology

Earl Thomas
Professor of Psychology

NEUROSCIENCE COURSES

(See the departmental listings for course descriptions).

LIST A (NEUROSCIENCE COURSES)

BIOL B244 BEHAVIORAL ENDOCRINOLOGY
BIOL B304 CELL AND MOLECULAR NEUROBIOLOGY
BIOL B321 NEUROETHOLOGY
BIOL B322 FROM CHANNELS TO BEHAVIOR
BIOL B364 DEVELOPMENTAL NEUROBIOLOGY
BIOL B401 SUPERVISED RESEARCH IN NEURAL & BEHAVIORAL SCIENCES
BIOL H309 MOLECULAR NEUROBIOLOGY*
BIOL H330 LABORATORY IN NEURAL AND BEHAVIORAL SCIENCE*
BIOL H350 PATTERN FORMATION IN THE NERVOUS SYSTEM*

BIOL H357 TOPICS IN PROTEIN SCIENCE*
BIOL H403 SENIOR RESEARCH TUTORIAL IN PROTEIN FOLDING AND DESIGN
BIOL H409 SENIOR RESEARCH TUTORIAL IN MOLECULAR NEUROBIOLOGY
PSYC B323 ADVANCED TOPICS IN COGNITIVE NEUROSCIENCE
PSYC B395 PSYCHOPHARMACOLOGY
PSYC B401 SUPERVISED RESEARCH IN NEURAL AND BEHAVIORAL SCIENCES
PSYC H240 PSYCHOLOGY OF PAIN AND PAIN INHIBITION
PSYC H260 COGNITIVE NEUROSCIENCE
PSYC H340 LABORATORY IN PSYCHOLOGY OF PAIN*
PSYC H360 LABORATORY IN COGNITIVE NEUROSCIENCE*
PSYC H370 NEUROSCIENCE OF MENTAL ILLNESS
PSYC H394 SENIOR RESEARCH TUTORIAL IN BIOLOGICAL PSYCHOLOGY
PSYC H395 SENIOR RESEARCH TUTORIAL IN COGNITIVE NEUROSCIENCE

LIST B (ALLIED DISCIPLINES)
BIOL B250 COMPUTATIONAL MODELS IN THE SCIENCES
BIOL H302 CELL ARCHITECTURE*
BIOL H306 INTER AND INTRA CELLULAR COMMUNICATION*
BIOL H312 DEVELOPMENT AND EVOLUTION*
CMSC B250 COMPUTATIONAL MODELS IN THE SCIENCES
CMSC B325 COMPUTATIONAL LINGUISTICS
CMSC B361 EMERGENCE
CMSC B361 COGNITIVE SCIENCE
CMSC B372 INTRODUCTION TO ARTIFICIAL INTELLIGENCE
CMSC B376 DEVELOPMENTAL ROBOTICS
LING H113 INTRODUCTION TO SYNTAX
LING H115 PHONETICS AND PHONOLOGY
LING H114 INTRODUCTION TO SEMANTICS
PHIL B244 PHILOSOPHY AND COGNITIVE SCIENCE
PHIL B319 PHILOSOPHY OF MIND
PHIL H102 RATIONAL ANIMALS
PHIL H106 PHILOSOPHY OF CONSCIOUSNESS
PHIL H110 MIND AND WORLD
PHIL H112 MIND, MYTH, AND MEMORY
PHIL H251 PHILOSOPHY OF MIND
PHIL H351 TOPICS IN PHILOSOPHY OF MIND
PSYC B201 LEARNING THEORY AND BEHAVIOR
PSYC B209 ABNORMAL PSYCHOLOGY
PSYC B212 HUMAN COGNITION
PSYC B350 DEVELOPMENTAL COGNITIVE DISORDERS
PSYC B351 DEVELOPMENTAL PSYCHOPATHOLOGY
PSYC H213 MEMORY AND COGNITION
PSYC H220 PSYCHOLOGY OF TIME
PSYC H238 PSYCHOLOGY OF LANGUAGE

*DENOTES HALF-CREDIT COURSE

PEACE, JUSTICE, AND HUMAN RIGHTS

haverford.edu/pjhr

The interdisciplinary concentration in peace, justice, and human rights offers students in any major the opportunity to:

- study the history, philosophy, and critiques of the rights tradition
- examine themes of human rights and justice in their local and international contexts
- apply philosophical, social scientific and ethical reasoning to real-world problems
- learn to communicate about their studies across disciplinary boundaries
- develop creative new perspectives on entrenched problems.

The concentration is open to students in any major who wish to focus on topics such as:

- human rights and critical rights discourse (universalism, localism, relativism, formal equality, group and special rights categories, individual and state responsibility, critiques of the rights tradition);
- recovery from conflict and mass violence (reconciliation, restorative justice, reparations, truth commissions, cultural renewal, legal mechanisms);
- war, conflict, peace-keeping and peace-making (weapons, conflict resolution, just war, sustainable peace);
- globalization and global governance (sovereignty, trade and capital, global justice, international economic institutions, technology, the media, immigration);
- politics of life (medicine/health, environment);
- space and the built environment (links between rights, social justice and the building of urban spaces, policing urban areas, urban poor);
- technology and politics (technology and media, weaponry).

The above fields are not intended as tracks or limitations. The list of topics will be as long as the creativity of students and faculty will allow.

CURRICULUM

The concentration combines three core courses with three elective courses focused on a particular theoretical problem, geographical region, or comparative study.

CONCENTRATION REQUIREMENTS

CORE COURSES

Students meet with the director in the spring of their sophomore year to work out a plan for the concentration. We require all concentrators to take three core courses:

- PEAC 101 (Introduction to PJHR)
- PEAC 201 (Applied Ethics of PJHR)
- PEAC 395 (Capstone Seminar in PJHR).

Alternate courses may on occasion fulfill a core requirement.

ELECTIVES

We require students also to take three additional elective courses for the concentration. There is no set list of courses which "count" as electives; instead, we ask students to design a thoughtful focus for their work, and choose courses in consultation with the concentration director, working out a plan that focuses the concentration regionally, conceptually, or around a particular substantive problem. A course does not have to have "peace" or "justice" in its title or content to count toward the concentration. The aim is to articulate a focus that helps each student pursue her or his interests in PJHR.

The concentrations is meant to overlap with students' majors: ideally two courses will overlap with the major, though the degree of overlap may vary. Each student works out a plan of study appropriate to his or her focus with the concentration director.

INTERNSHIP OR RESEARCH EXPERIENCE

We encourage students will also be encouraged to undertake an internship, research project, or other form of field learning as part of their concentration. This helps students to face the challenges of integrating data and theory into original analyses.

CONCENTRATION COORDINATOR

Jill Stauffer

Assistant Professor, Director of the Peace, Justice, and Human Rights Concentration, and Affiliated Faculty Member of the Philosophy Department

COURSES

101 INTRODUCTION TO PEACE, JUSTICE, AND HUMAN RIGHTS

Jill Stauffer

Introduction to the study of peace, justice, and human rights, surveying philosophies of rights and justice; approaches to (and reasons for) peace, war, and nonviolence; clashes between human rights and conflict resolution; why study of human rights is necessarily interdisciplinary. Prerequisite: Lottery Pref to PJHR Conc then Frosh, Sophs.

201 APPLIED ETHICS OF PEACE, JUSTICE, AND HUMAN RIGHTS

Jill Stauffer

This course surveys major legal and ethical theories with a view to helping students understand arguments about peace, justice, and human rights and formulate their own creative approaches to ethical problems. Theories will be applied to concrete problems of justice.

201 ETHICS OF PEACE AND JUSTICE

Jill Stauffer

This course surveys major legal and ethical theories with a view to helping students understand arguments about peace, justice and human rights and formulate their own creative approaches to ethical problems. Theories will be applied to concrete problems of justice.

297 TIME AFTER TIME: TEMPORALITY

This course examines how film and philosophy deal with problems of time and temporality in the contemporary era--including metaphysical, physical, ethical and political time. Films such as Memento, Terminator and 2001 are read alongside works by Heidegger, Bergson, Freud, Arendt, Benjamin, etc.

300A ADVANCED ADVANCED TOPICS IN PEACE, JUSTICE, AND HUMAN RIGHTS

Lindsay V. Reckson

This course examines the history of literary and cultural responses to capital punishment in the U.S., from the introduction of privately conducted state-sanctioned executions in the 1830s to the reinstatement of the death penalty in 1976. We explore the anti-death penalty movement through literature, photography, and film, with an emphasis on the relationship between politics and aesthetics; interwoven histories of race, gender, class, and criminality; and the connection between capital punishment, media, and other technologies of social power.

300B ADVANCED TOPICS IN PEACE, JUSTICE, AND HUMAN RIGHTS

Roberto Castillo Sandoval

The course considers the representation of political upheaval, dictatorship, and violence in recent Latin American literature and film, particularly in Chile and Argentina, beginning with the rise of the Popular Unity government of Salvador Allende (1970–73) in Chile and the return of Perón in Argentina, continuing through the Pinochet and Videla dictatorships (1973–90, 1976–82, respectively) and the period of democratic stabilization or "transition" that continues to our days, including efforts to achieve justice for crimes against human rights. Central to our concerns are the relationship between the arts (literature and the cinema, principally) and history; trauma and the limits of representation; ideology and censorship in the representation of terror and violence; considerations of gender, class and geographic location, and their effects on the task of creating memory and making sense of the present through an assessment of the past.

395 CAPSTONE IN PEACE, JUSTICE, AND HUMAN RIGHTS

Jill Stauffer

This capstone course consolidates student experience of a program that integrates scholarship, theory, library and field research, and policy perspectives. It incorporates research assignments, collaboration, a conference presentation and a dossier on student work in the concentration.

OTHER COURSES

This is a partial listing of courses that may count towards the concentration. Contact the concentration's Director, Jill Stauffer, for further course recommendations or to suggest courses to add to this list.

ANTHROPOLOGY
ANTH B206 Conflict and Conflict Management: A cross-cultural approach
ANTH H249 Colonialism, Law and Human Rights in Africa
ANTH H252 State and Development in South Asia
ANTH H261 Memory, History, Autobiography
ANTH H263 Architecture and Space
ANTH H315 Human Rights, Gender and Knowledge
ANTH H350 Social and Cultural Theory

COMPARATIVE LITERATURE
COML B211 Primo Levi, Holocaust and Aftermath
COML H322 Politics of Memory in Latin America

BIOLOGY
BIOL H301 Genetic Analysis
BIOL H308 Immunology

CHEMISTRY
CHEM H 261 Environmental Chemistry

ECONOMICS
ECON H 100 The Economics of Public Policy
ECON H 220 Economics of Immigration
ECON H 224 Women and the Labor Market

ENGLISH
ENGL H211 Intro to Postcolonial Literature
ENGL H343 Transatlantic Exchanges

FRENCH
FREN H312 Le Genocide Rwandais

HISTORY
HIST H209 Modern Latin America
HIST H227 Statecraft and Selfhood in Early Modern Europe
HIST H240 History and Principles of Quakerism
HIST B287 Immigration in the U.S.
HIST H310 Political Technologies of Race and Body
HIST B325 Topics in Social History: Radical Movements
HIST H347 War and Warriors in Chinese History

INDEPENDENT COLLEGE PROGRAMS
ICPR H221 Epidemiology and Global Health.
ICPR H281 Violence and Public Health
ICPR H301 Human Rights: Development and International Activism
ICPR H302 Bodies of Injustice
ICPR H310 Restorative Justice

PHILOSOPHY
PHIL B225 Global Ethical Issues
PHIL H257 Critical Approaches to Ethical Theory
PHIL H302 Topics in Philosophy of Law
PHIL B344 Development Ethics

POLITICAL SCIENCE
POLS H151 International Politics
POLS H161 Politics of Globalization
POLS H171 Democratic Authority
POLS H232 Peace Building
POLS H235 African Politics
POLS H242 Women in War and Peace
POLS H252 Human Rights and Global Politics
POLS H266 Sovereignty
POLS B283 Modern Middle East and North Africa
POLS H345 Islam, Democracy and Development
POLS H229 Latino Politics in the U.S. (Cross-listed in Peace, Justice & Human Rights)
POLS H334 Politics of Violence (Cross-listed in Peace, Justice & Human Rights)
POLS H370 Topics in Political Theory (Cross-listed in Peace, Justice & Human Rights)

RELIGION
RELG H264 Religion and Violence
RELG H266 Religion, Nonviolence and the Meaning of Peace

SOCIOLOGY
SOCL B205 Social Inequality
SOCL H235 Class, Race, and Education
SOCL B354 Comparative Social Movements

PHILOSOPHY

haverford.edu/philosophy

Philosophy at Haverford aims as far as possible to reflect the richness, diversity, and reflexivity of philosophical inquiry. Grounded throughout in the history of philosophy, many courses focus on particular subfields, on social and political philosophy, for instance, or the philosophy of mind, aesthetics, or the philosophy of logic and language. A student of philosophy at Haverford might study views regarding the ultimate nature of reality or pursue questions about the nature of a good human life, might grapple with theoretical problems of social justice or with puzzles that arise on reflection about language.

GLOBAL PHILOSOPHY

The department also provides courses in global philosophy that seek to cultivate global philosophical literacy for students across all majors. (These courses, which are not included within the major or minor, appear at the conclusion of this departmental description.)

The Department of Philosophy helps students—whether or not they are majors in the discipline—to develop the reflective, analytical, and critical skills required for thoughtful engagement with problems and issues in all aspects of life. Courses introduce students to seminal ideas that have changed, or have the potential to change, our most fundamental understanding of who we are and how we should live our lives. Because the study of philosophy is essentially reflexive, we also encourage students to reflect on and (if need be) problematize not only the methods of philosophy but also its history, goals, and achievements.

In studying the discipline of philosophy, students:

- learn to recognize and articulate philosophical problems, whether those that arise within philosophy or those to be found in other academic disciplines and outside the academy;
- become skilled at thinking, reading, writing, and speaking thoughtfully and critically about philosophical problems, through learning to recognize, assess, and formulate cogent and compelling pieces of philosophical reasoning both in writing and verbally;
- achieve literacy in a wide range of philosophical works and develop thoughtful views about their interrelations;
- develop attitudes and habits of reflection, appreciation for the complexities of significant questions in all aspects of their lives, and the courage to address those complexities.

In their senior year, philosophy majors:

- research and write original senior theses
- give presentations of their thesis work–in–progress
- meet and engage distinguished visiting philosophy scholars in public fora and small seminars.

CAREERS AND GRADUATE WORK

Since the study of philosophy strengthens both the skill of analytical thinking characteristic of scientific investigation and the strong verbal and writing skills of the humanist, advanced undergraduate training in philosophy is excellent preparation for a wide range of career paths. It is also at the core of a liberal education—regardless of one's primary intellectual interests. Some Haverford philosophy majors go on to graduate school in philosophy. Most pursue careers in other disciplines such as medicine, law, education, public service, architecture, and business.

CURRICULUM

The philosophy curriculum has three major aims:

- To help students develop thoughtful attitudes toward life and the world through encounters with the thought of great philosophers. We encourage students to reflect critically on such problems as the nature of our individual and social lives, the nature of the world in which we live, and the nature of our consciousness of and response to that world.
- To help students acquire philosophical materials and skills that supplement and integrate their other studies in the liberal arts and sciences.
- To offer students a foundation in knowledge and skills that will prepare them for graduate

study in philosophy or in related fields.
Unless otherwise indicated, one philosophy course at the 100 level is a prerequisite for all other courses in philosophy. Courses at the 300 level require, in addition, a 200-level course plus junior standing, or consent of the instructor. Some advanced philosophy courses may require a reading knowledge of a foreign language as a prerequisite for admission.

MAJOR REQUIREMENTS

1. One philosophy course at the 100-level (or Bryn Mawr Phil 101, 102, or the equivalent elsewhere).
2. Five philosophy courses at the 200-level, at least four of which must be completed by the end of junior year.
3. Three philosophy courses at the 300-level.
4. Senior seminar (Phil 399a and 399b).

The eight courses at the 200- and 300-level must furthermore satisfy the following requirements:

1. Historical: One course must be from among those that deal with the history of European philosophy prior to Kant (PK).
2. Topical breadth:
   - one course must be from among those that deal with value theory (VT) including ethics, aesthetics, social and political philosophy, and legal philosophy.
   - One course must be from among those that deal with metaphysics and epistemology (ME), including ontology, philosophy of mind, philosophy of psychology, and philosophy of action.
   - One course must be from among those that deal with logic, the philosophy of literature, and/or the philosophy of language (LL).
3. Systematic coherence: Four of these courses, two at the 200-level and two at the 300-level, must exhibit some systematic coherence in theme or subject satisfactory to the major advisor and department.

Students that elect a major in philosophy but are unable to comply with normal requirements due to special circumstances should consult the chairperson regarding waivers or substitutions.

We also encourage majors to be Discussion Leaders in their senior year.

MINOR REQUIREMENTS

- One philosophy course at the 100 level; or Bryn Mawr Philosophy 101, 102, or 201; or the equivalent elsewhere.
- Three philosophy courses at the 200 level.
- Two philosophy courses at the 300 level.

Among the 200- and 300-level courses:
- one must be in value theory (broadly conceived to include ethics, social and political philosophy, aesthetics, and legal philosophy);
- one must be in metaphysics and epistemology (including ontology, philosophy of mind, and philosophy of action);
- one must be concerned with philosophical texts written before the twentieth century.

Minors can satisfy this third requirement separately from the other two or concurrently with either of the other two (e.g., by taking a course in ancient ethics, or in Descartes' metaphysics).

RESEARCH

Extensive research opportunities for senior majors include:
- inviting a prominent international philosopher of their choice for a talk, lunch, seminar, and reception;
- researching, writing, and presenting an independent thesis project in close collaboration with a member of the faculty; and
- leading student discussions in introductory philosophy courses.

HONORS REQUIREMENTS

The award of honors in philosophy will be based upon distinguished work in philosophy courses, active and constructive participation in the senior seminar, and the writing and presentation of the Senior essay. High honors requires in addition exceptional and original work in the Senior essay.

FACULTY

Jerry Miller
Department Chair and Associate Professor
Ethics, poststructuralism, and philosophy of race

Ashok Gangadean
The Emily Judson and John Marshall Gest Professor of Global Philosophy
Philosophy of logic and language, global

ontology, global and comparative philosophy, global ethics, global wisdom, and Hindu, Buddhist, and Zen tradition in global contexts

Danielle Macbeth
T. Wistar Brown Professor of Philosophy
Metaphysics, epistemology, philosophy of mind, philosophy of logic, and philosophy of language

Kathleen Wright
Professor of Philosophy
Modern and Contemporary European Philosophy, Philosophical Hermeneutics, and Chinese Philosophy

Jill Stauffer
Assistant Professor and Director of the Peace, Justice, and Human Rights Concentration, and Affiliated Faculty Member of the Philosophy Department

Joel Yurdin
Assistant Professor of Philosophy
Ancient Greek Philosophy, Philosophy of Mind (especially Philosophical Psychology), Epistemology, Early Modern Philosophy.

COURSES

105 LOVE, FRIENDSHIP, AND THE ETHICAL LIFE

K. Wright

This course examines the role given to love and friendship within an ethical life according to four dominant Western theories: virtue ethics, deontological ethics, utilitarian ethics, and the ethics of care. We will also look at the role played by love and friendship in Confucian ethics, an ethics that has affinities with virtue ethics and the ethics of care.

106 PHILOSOPHY OF CONSCIOUSNESS

Ian S. Blecher

"The human body is the best picture of the soul" (Wittgenstein). This course provides an introduction to six Western conceptions of the body, of the soul/mind, and of the relation between the body and the soul/mind. Readings: Plato, Aristotle, Descartes, Nietzsche, Arendt, and de Beauvoir.

107 HAPPINESS, VIRTUE, AND THE GOOD LIFE

Joel Yurdin

Happiness is something that we all want, but what exactly is it? Perhaps happiness is or involves leading a flourishing life. What, then, is a flourishing life? Does such a life involve the possession and exercise of certain states of character? Which ones? This course will consider these and related issues, including the virtues and their interrelations, the nature and identity of persons, and the meaning (or meaninglessness) of life. Readings from classic and contemporary sources, including Plato, Aristotle, Locke, Hume, Nagel, and Wolf.

210 PLATO

Joel Yurdin

A close reading of Plato's Meno, Phaedo, Republic, Symposium, and Theaetetus, with a focus on issues in philosophical psychology, metaphysics, and the theory of knowledge. Emphasis is on a philosophical understanding of the views and arguments suggested by the texts, and special attention is paid to the roles of literary aspects of the texts in the presentation of philosophical content.

222 EARLY MODERN BRITISH PHILOSOPHY

Joel Yurdin

How can we think all that we actually do think? What is mind-independent reality like? This course examines these and related questions in the philosophical writings of Locke, Berkeley, Hume, and Reid. Emphasis is on a philosophical understanding of the theories of cognition and reality developed in these texts.

226 NIETZSCHE

K. Wright

235 CHINESE PHILOSOPHY

K. Wright

An introduction to the lively and sharp disputes between competing schools of philosophy in ancient Chinese philosophy, that is, philosophy in the pre-Han period prior to the syncretism that marks Confucianism, neo-Confucianism, and most recently New Confucianism.

251 PHILOSOPHY OF MIND

Ian S. Blecher

The focus of this course is the question of the place of mind in nature, in the world. What sort of thing is a mind? What is it to be conscious? Can there be freedom of the will in a physical world? Could a computer ever be correctly described as thinking? Do animals have minds?

Our aim is to clarify what we are asking when we ask such questions, and to begin at least to formulate answers.

253 ANALYTIC PHILOSOPHY OF LANGUAGE

Danielle Macbeth

A close study of seminal essays by Frege, Russell, Kripke, Quine, Davidson, and others focussing on questions of meaning, reference, and truth. An overarching aim of the course is to understand how one can approach fundamental issues in philosophy through a critical reflection on how language works.

257 CRITICAL APPROACHED TO ETHICAL THEORY

Jerry Miller

This course examines efforts over the last century to engage the ethical without recourse to formal systems or foundational principles. How, these approaches ask, can we talk about good and evil, morality and immorality, while believing "truth" to be historically, linguistically, and culturally contingent? In the process of drafting possible answers, we shall think deeply about concepts such as violence, justice, and social responsibility.

335 TOPICS IN MODERN EUROPEAN PHILOSOPHY

K. Wright

355 EPISTEMOLOGY: SCEPTICISM

Ian S. Blecher

360 TOPICS IN PHILOSOPHICAL PSYCHOLOGY

Joel Yurdin

An examination of some central problems concerning the varieties of cognition. Topics may include hallucination, illusion, the phenomenal character of perceptual awareness, and the nature of sense-experience. Readings from contemporary authors.

370 TOPICS IN ETHICS

Jerry Miller

This course addresses the question of our relationship to the future, inquiring into the nature of the future and whether it is the kind of thing that might demand an ethical relation. Looking at texts from philosophy and related disciplines, we examine the nature of time and history, the causal power of the future, and the question of our responsibility for the future.

399 SENIOR SEMINAR

Danielle Macbeth, Joel Yurdin, K. Wright

This course has several components: (a) participation in the Altherr Symposium, including three to four meetings devoted to preparation for the symposium, (b) participation in the Distinguished Visitors series, (c) the writing of a senior thesis, and (d) presentation of one's work for critical discussion with others in the seminar, as well as a final formal presentation.

404 DISCUSSION LEADERS

Joel Yurdin

405 DISCUSSION LEADERS

K. Wright

406 DISCUSSION LEADERS

Ian S. Blecher

480 INDEPENDENT STUDY

A. Gangadean, K. Wright

COURSES IN GLOBAL PHILOSOPHY

The philosophy curriculum additionally provides courses in global philosophy that seek to cultivate global literacy for all students in the liberal arts across diverse majors. Courses in global philosophy explore fundamental issues in philosophy in global context across and between diverse worldviews and philosophical traditions. These courses augment philosophical literacy, rationality, and critical thinking between diverse worlds, seeking to appreciate diversity while at the same time cultivating integral intelligence and capacities to make significant connections between diverse worldviews and disciplinary orientations. Such skills in global literacy and interdisciplinary dialogue are vital for all liberal arts students and for the literacy of global citizenship. These courses are not included in and do not count toward the major or minor.

103 GLOBAL ETHICS

A. Gangadean

An exploration of selected texts on ethics in a global context. This course seeks to develop a global perspective on human values through a critical exploration of vital texts on ethics across diverse philosophical traditions. A central focus is on the challenge of articulating global ethics and global values across cultures, worldviews and traditions. Are there global norms valid for diverse worldviews? Is there a global foundation for ethics? Are there universal human rights?

How do we think critically across and between diverse worldviews and perspectives. A course in Global Philosophy, not for major or minor credit.

104 GLOBAL WISDOM

A. Gangadean

A critical exploration of classic texts from diverse philosophical traditions in a global context. This course seeks to cultivate a global perspective in philosophy and brings classical texts from diverse philosophical worlds into global dialogue. One aim is to help students to appreciate global patterns in rationality across traditions and to gain a critical understanding of common ground and significant differences in diverse wisdom traditions. Readings include Bhagavad-Gita, Dhamapada, Plato's Phaedo, and Descartes's Meditations. A course in Global Philosophy, not for major or minor credit.

241 HINDU PHILOSOPHY IN A GLOBAL CONTEXT

A Gangadean

A critical exploration of classical Hindu thought (Vedanta) in a global and comparative context. Special focus on selected Principal Upanisads, a close meditative reading of the Bhagavad-Gita and an in depth exploration of Shankara's Brahmasutra Commentary. Prerequisite: One Phil course at the 100 level or consent. A course in Global Philosophy, not for major or minor credit. Typically offered in alternate years.

242 BUDDHIST PHILOSOPHY IN A GLOBAL CONTEXT

A. Gangadean

An introduction to classical Indian Buddhist thought in a global and comparative context. The course begins with a meditative reading of the classical text The Dhamapada and proceeds to an in depth critical exploration of the teachings of Nagarjuna, the great dialectician who founded the Madhyamika School. Prerequisite: One 100-level Philosophy course or its equivalent, or consent. A course in Global Philosophy, not for major or minor credit. Typically offered in alternate years.

252 PHILOSOPHY OF GLOBAL LOGIC AND LANGUAGE

A Gangadean

A comparative exploration of alternative paradigms of logic, language and meaning from a logical and philosophical point of view. Special attention is given to the classical Aristotelian grammar of thought and the modern grammars developed by Frege, Wittgenttein, Quine, Heidegger, Sommers, Derrida, and others. Focus is on the quest for the fundamental logical of natural language. Prerequisite: One Phil course at the 100 level or consent. A course in Global Philosophy, not for major or minor credit. Typically offered in alternate years.

254 METAPHYSICS: GLOBAL ONTOLOGY

A. Gangadean

A critical examination of philosophical accounts of reality and being. Special attention is given to how world views are formed and transformed: an ontological exploration of diverse alternative categorical froameworks for experience. Metaphysical narratives of diverse thinkers in the evolution of the European tradition are explored in global context. Prerequisite: One 100-level philosophy course or its equivalent, or consent. A course in Global Philosophy, not for major or minor credit. Typically offered in alternate years.

342 ZEN THOUGHT IN A GLOBAL CONTEXT

A. Gangadean

Prerequisite: An Intro Phil course (100 series) and either 241 (Hindu Thought) or 242 (Buddhist Thought) or a course in Religious or East Asian thought or consent. A course in Global Philosophy, not for major or minor credit.

352 TOPICS IN THE PHILOSOPHY OF LANGUAGE: METAPHOR AND MEANING IN A GLOBAL CONTEXT

A. Gangadean

A course in Global Philosophy, not for major or minor credit.

COURSES OFFERED AT BRYN MAWR

FALL

102 SCIENCE AND MORALITY IN MODERNITY

205 MEDICAL ETHICS

212 METAPHYSICS

221 ETHICS

224 COMPARATIVE POLITICAL PHILOSOPHY

231 INTRODUCTION TO POLITICAL PHILOSOPHY: MODERN

253 THEORY IN PRACTICE: CRITICAL DISCOURSES IN THE HUMANITIES

317 PHILOSOPHY OF CREATIVITY

323 CULTURE AND INTERPRETATION

326 RELATIVISM: COGNITIVE AND MORAL

371 TOPICS IN LEGAL AND POLITICAL PHILOSOPHY: STATE, SOCIETY AND LAW

398 SENIOR SEMINAR

SPRING

101 HAPPINESS AND REALITY IN ANCIENT THOUGHT

102 SCIENCE AND MORALITY IN MODERNITY

228 INTRODUCTION TO POLITICAL PHILOSOPHY: ANCIENT AND EARLY MODERN

244 PHILOSOPHY AND COGNITIVE SCIENCE

245 PHILOSOPHY OF LAW

252 FEMINIST THEORY

293 THE PLAY OF INTERPRETATION

330 KANT

344 DEVELOPMENT ETHICS

371 TOPICS IN LEGAL AND POLITICAL PHILOSOPHY

372 INTRODUCTION TO ARTIFICIAL INTELLIGENCE

399 SENIOR CONFERENCE

PHYSICS
haverford.edu/physics

The Physics department introduces students to concepts and methods that are fundamental throughout the sciences. It provides opportunities for first-hand experimental and theoretical investigations, together with the study of those basic principles that have led to profound scientific, philosophical, and technological developments. Physics majors achieve a high level of competency in many facets of physics, including:

- experimental physics laboratory skills
- physical problem-solving
- mathematical and computing expertise.

While many of our majors go on to graduate study, we have structured our programs to be sufficiently flexible that they also accommodate students wishing to study abroad, or to combine physics with other fields of study, including medicine and interdisciplinary programs in astrophysics, biophysics, chemical physics, computing, and engineering. Students can explore these options by selecting either the traditional or interdisciplinary major, which have different requirements (see below).

For majors in Astronomy and Astrophysics, see the Astronomy section (page 67).

CURRICULUM

Physics offers three distinct programs: a traditional major, an interdisciplinary major designed for a broader audience, and a minor. The requirements for these three options are listed below.

We advise prospective majors in all of the science disciplines to study some physics in their freshman or sophomore year, given that all contemporary sciences rely heavily on basic physical principles. There are three different introductory options:

- Physics 101 and 102 constitute a year-long, self-contained treatment of all of physics, with particular attention to applications in the life sciences.
- Physics 105 and 106 use calculus somewhat more intensively and are designed for students who expect to continue their study of physics in other courses, either in the physics or the chemistry department.
- Physics 115 (followed by 106) provides a third option, designed for students with advanced preparation. Advice on course selection is provided on the department's web site.

The department offers several courses with no prerequisites, for students prior experience in physics can take:

- Physics 112, which examines the conceptual difficulties of quantum mechanics
- Physics 113, which examines symmetry and its role in the universe

A typical course sequence introducing both the traditional major and the minor consists of 105 (or 115), 106, 213, 214, and the 211 and 212 laboratories. However, students beginning their study in 101 and 102 may continue with 213 and join the major or minor as well.

Physics 105 (or 115), 106, 213, and 214 are also prerequisites for the astronomy and astrophysics majors; we recommend (but do not require) the half-credit course Astronomy/Physics 152, which is intended for first year students considering a physical science major who would like an opportunity to study recent developments in astrophysics.

MAJOR

The department emphasizes student participation in research with faculty members. Currently, we have active research programs in quantum information and quantum computing, observational cosmology, extragalactic astronomy, biophysics, and nanoscience. Courses numbered 412 to 415 provide majors with opportunities to participate in these research efforts for academic credit during their senior year. Paid summer research positions are often available.

Advanced students interested in teaching may participate in the instructional program by registering for Physics 459 or 460. (Students interested in physics or science education at the

secondary level should also consult the teaching certification information in the section on Education and Educational Studies.)

AREAS OF CONCENTRATION

Concentrations in both computer science and scientific computing are available for physics majors. For both programs, see the Computer Science section (page 107). Physics majors with biological interests may also qualify for the biophysics concentration; see the Biochemistry and Biophysics section (page 72). Physics majors may also take an area of concentration in education; see the section on Education and Educational Studies (page 123).

Students interested in engineering can complete an individualized major program in preparation for graduate work in engineering or the Engineering 4+1 Program with the University of Pennsylvania or the 3/2 Program with Caltech; for details see the Engineering section (page 34).

Students interested in materials science should also consult the related offerings in materials chemistry through Haverford's chemistry department (see page 81).

MAJOR REQUIREMENTS

1. Physics 105 (or 101 or 115), 106 (or 102), 213, 214, 211, and 301 (or Bryn Mawr equivalents). Students may take the last two concurrently with 213 and 214.
2. Mathematics 121 (or 216) and 215 (or one of: Math 222, the Bryn Mawr equivalent of Math 215, another 200 level Math course with permission).
3. Six upper-level courses in physics at Haverford or Bryn Mawr.
   - One of these must be a laboratory course such as 326 or Bryn Mawr 305.
   - Majors must take three of the four core theoretical courses: 302, 303, 308, and 309.
   - One of the six upper-level physics courses may be a 400-level research course.
   - Majors may count either 459 or 460 among the six upper-level courses.
   - Majors must take one course outside the department at a level consistent with the student's background in astronomy, biology, computer science, chemistry, or engineering (at Penn or Swarthmore). (This requirement is waived for double majors.)
4. Physics 399, including a presentation and senior paper based on independent work, and attendance at senior colloquia and distinguished lectures hosted by the department.

Students may replace two of the six upper-level courses by upper-level courses in a related department, with the approval of the major advisor. (The department asks students to prepare a brief written statement explaining the relationship between the proposed courses and the physics major.)

Students considering graduate study in physics should take four of the following five courses by the end of their junior year: 302, 303, 308, 309, and 326 (or their Bryn Mawr equivalents).

INTERDISCIPLINARY PHYSICS MAJOR REQUIREMENTS

We encourage students with multiple academic interests who are not likely to undertake physics graduate study to consider the Interdisciplinary Physics major, with a slightly abbreviated set of requirements students can complete in three years. The interdisciplinary major differs from the traditional physics major by offering more flexible course choices and by coordinating the physics courses with the student's work in another field. In the version requiring the fewest physics courses, this major requires 8.5 instead of 10 physics courses, while both majors require 2 math courses, and 3 courses in a related field.

Students can discuss this track—which can also facilitate a concentration, an engineering option, or a minor in another department—with any member of the Department.

The requirements are as follows:

- Either Physics 105 (or 115) and 106, or Physics 101 and 102
- Physics 213 and 214 (our sophomore lecture course sequence) and 211 (sophomore-level laboratory course)
- Mathematics 121 (or 216) and 215 (or one of: Math 222, the Bryn Mawr equivalent of Math 215, another 200-level Math course with permission).
- Three 300-level physics lecture courses, with two the major must draw from these core courses: 302, 303, 308, and 309.
- An upper-level laboratory course in the natural or applied sciences, such as Physics 301, Biology 300a or b, or Chemistry 301 or 302 . (Alternately, the student can request the substitution of an advanced laboratory course in

another area of science or applied science.)
- Two other courses, at the 200-level or higher in a related field, that are part of a coherent program, which the student proposes and the major advisor must approve.
- Senior Seminar (Physics 399) and the associated senior talk and thesis.

MINOR REQUIREMENTS

- Physics 105 (or 101 or 115) and 106 (or 102); 213, 214, 211 and 301 labs (or Bryn Mawr equivalents).
- Mathematics 121 (or 216) and 215 (or one of: Math 222, the Bryn Mawr equivalent of Math 215, another 200-level Math course with permission).
- One of the four "core" 300-level lecture courses in physics at Haverford or Bryn Mawr: 302 (Advanced Quantum Mechanics), 303 (Statistical Physics), 308 (Advanced Classical Mechanics), or 309 (Advanced Electromagnetism and Modern Optics).
- Participation for two semesters in the public lectures and seminars hosted by the department.

REQUIREMENTS FOR HONORS

The department awards honors in physics is based on the quality of performance in course work and the senior colloquium and paper. High honors carries the additional requirement of demonstrated originality in senior research.

FACULTY

Beth Willman
Chair and Associate Professor

Suzanne Amador Kane
Associate Professor

Peter J. Love
Associate Professor

Kerstin Perez
Assistant Professor

Walter F. Smith
Professor

COURSES

101 CLASSICAL AND MODERN PHYSICS I

Daniel Cross
Three class hours and one laboratory period. The first of a two-semester comprehensive introduction to physics, with an emphasis on life science applications involving Newtonian mechanics, oscillations, mechanics of materials, fluids, and thermal physics.

102 CLASSICAL AND MODERN PHYSICS II

Three class hours and one laboratory period. A continuation of Physics 101, covering electricity and magnetism, optics, waves, sound, quantum physics, and nuclear physics. Applications include topics such as nerve conduction, the optics of vision, and radioactivity.

105 FUNDAMENTAL PHYSICS I

Three class hours and one laboratory period. Newtonian mechanics and thermodynamics. Applications are drawn primarily from the physical sciences. This sequence (105/106) is meant as a one-year introduction suitable for students interested in the physical sciences.

106 FUNDMENTAL PHYSICS II

Daniel Cross
Three class hours and one laboratory period. A continuation of Physics 105, covering electricity and magnetism, optics, and special relativity.

115 MODERN INTRODUCTORY PHYSICS

Three class hours and one laboratory period. This introductory course provides students who have an advanced background in mechanics with an alternative pathway into physics by exploring applications of introductory physics through a modern perspective. Examples are drawn from topics such as quantum physics, materials and nanoscience, biophysics, chaos and fluid motion, and relativity. This course forms a year-long sequence with PHYS 106: Fundamental Physics II (Electricity and Magnetism) in the spring semester.

152 FRESHMAN SEMINAR IN ASTROPHYSICS

Desika Narayanan
This half-credit course is intended for prospective physical science majors with an interest in recent developments in astrophysics. Topics in modern astrophysics are viewed in the context of underlying physical principles. Topics include

black holes, quasars, neutron stars, supernovae, dark matter, the Big Bang, and Einstein's relativity theories.

211 LAB IN ELECTRONICS AND WAVE PHYSICS

Suzanne Kane

The first half of this laboratory is an introduction to analog electronics and instrumentation. The second half includes experiments in waves and optics. Normally taken concurrently with PHYS 213.

213 WAVES AND OPTICS

Vibrations and waves in mechanical, electronic, and optical systems with an introduction to related mathematical methods such as functions of a complex variable and Fourier analysis. Topics include free and driven oscillations, resonance, superposition, coupled oscillators and normal modes, traveling waves, Maxwell's equations and electromagnetic waves, interference, and diffraction. PHYS 211, a related laboratory half-course, is normally taken concurrently and is required for majors.

214 INTRODUCTION TO QUANTUM MECHANICS

Walter F. Smith

Introduction to the principles governing systems at the atomic scale. Topics include the experimental basis of quantum mechanics, wave-particle duality, Schrodinger's equation and solutions in one dimension, time dependence of quantum states, angular momentum, and one-electron atoms. Recent developments, such as paradoxes calling attention to the remarkable behavior of quantum systems, or quantum computing, are discussed. Multi-electron atoms and nuclei are considered if time allows. Physics 212, a related laboratory half-course is required for majors, and may be taken concurrently.

301 QUANTUM PHYSICS LAB

A full-semester weekly laboratory focusing on experiments of modern relevance with a focus on quantum mechanics. Topics include: how lasers work and laser spectroscopy; spin resonance; nuclear and cosmic ray physics; electron diffraction; photoelectric effect; superconductivity; quantum eraser (a "which way" experiment), etc. One of two laboratories at the advanced level required for the regular physics major; fulfills the advanced laboratory requirement for the interdisciplinary physics major. Replaces PHYS 212.

308 MECHANICS OF DISCRETE AND CONTINUOUS SYSTEMS

Walter F. Smith

Classical mechanics of systems of particles, and also continua such as fluids, including oscillations and chaos, Lagrangian mechanics, dynamics of systems of particles, the Navier-Stokes equations of fluids, and applications to diverse physical phenomena that may vary from year to year, e.g. waves, vortices, rotating fluids, flight, instabilities, turbulence, and biological flows.

322 SOLID STATE PHYSICS

Walter F. Smith

Understanding both conventional and soft materials using the principles of quantum and statistical physics. Crystallinity, lattice dynamics, conduction in metals, semiconductors and devices, and soft systems such as colloids, polymers, liquid crystals, and biological materials. Prerequisite: Physics 214. Statistical physics is desirable. Typically offered yearly in alternation with Bryn Mawr.

326 ADVANCED PHYSICS LAB

Suzanne Kane

Design, execution, and analysis of significant experiments, which change from year to year. Those presently available include studies of microfluidics, atomic spectroscopy, cosmic ray physics, laser tweezers, x-ray diffraction and materials synthesis, superconductivity, sensor technologies, and chaotic dynamics. The course emphasizes the effective use of contemporary experimental tools, including low-noise measurement techniques, laboratory computers, and optical methods.

399 SENIOR SEMINAR

S. Amador, Suzanne Kane

A capstone experience for seniors in physics meeting biweekly throughout the year. An introduction to scientific writing and speaking; scientific ethics; graduate study in physics and astronomy; career options for physics and astronomy majors, both within the field and outside science; preparation and presentation of senior papers and colloquia; attendance at lectures by distinguished visitors; and discussions of student and faculty research projects in the department.

413 RESEARCH IN BIOPHYSICS

Suzanne Kane

Experimental research on the statistical mechanics of biophysical systems and soft matter physics. Topics include empirical and computational studies of flocking and biological physics approaches to studying problems in evolution.

415 RESEARCH IN NANOSCALE PHYSICS

Walter F. Smith

COURSES OFFERED AT BRYN MAWR

Many upper-level physics courses are taught at Bryn Mawr and Haverford in alternate years. These courses (numbered 302, 303, 308, 309) may be taken interchangeably to satisfy major requirements.

POLITICAL SCIENCE

haverford.edu/politicalscience

The Political Science department seeks to address issues of power, citizenship, government, and justice in the United States and throughout the world by studying the diversity of political life and thought in our own age and in the past. Our courses explore political processes and governmental institutions from multiple vantage points—at the grassroots, the nation-state, and the global community—and from a variety of theoretical, conceptual, historical, and experiential perspectives. Our goal is to provide students with a deep understanding of the core concepts and practices of politics and government while developing the analytical, research, and writing skills that enable them to think critically and creatively about existing structures of power and privilege. In doing so, we hope to nurture a life-long fascination and engagement with the political realm.

Courses fall into five subfields of the discipline of political science:

- **American politics** (A): major institutions; bureaucracy; discrimination; urban politics and urban policy; and ethnicity, gender, sexuality, and class in relation to American politics.
- **Comparative politics** (C): politics and governments throughout the world; women and politics; comparative political economy; human rights; civil war and revolution; and transitions to democracy.
- **International relations** (I): international political economy and international security; the state system; international organizations; causes of war, terrorism, peace-building, and reconciliation; and American foreign policy.
- **Globalization and global governance** (G): sovereignty; free/fair trade; immigration; global civil society and global justice movements; international relations theory; and classic works of political theory.
- **Political theory** (T): justice, equality, and liberty; power, authority, and order; democratic theory; American political thought; feminist theory; and politics and culture.

Haverford's program is designed to provide an understanding of how and why decisions are made. For many students this knowledge serves as the foundation for participation in public affairs and the shaping of the policies that affect their communities and their personal lives. Many majors choose to go on to law school, but just as readily to government service, journalism, teaching, community organizing, any one of which might lead to running for office. Given that most of our classes are small enough to allow ample discussion and dialogue, students leave Haverford well equipped for those continuing discussions that determine the quality of life in our society.

CURRICULUM

In each of the five fields of study described above we offer coursework at the introductory, intermediate, and advanced levels. Coordinating our offerings with those at Bryn Mawr means that we provide a wide range of subjects.

The Department contributes to multiple concentrations, including Peace, Justice, and Human Rights; Middle East and Islamic Studies; African and Africana Studies; and Gender and Sexuality Studies.

MAJOR

By senior year students are involved in major research projects, and every student who majors in political science writes a senior thesis that has included original research.

An advanced seminar places students in intensive internships with city government agencies, citizen groups, and community-based organizations in Philadelphia—an example of the Department's commitment to experiential learning.

MAJOR REQUIREMENTS

- Two of the following 100-level courses to enter the major: 121, 123, 131, 151, 161, and 171. These courses must represent two different subfields.
- Six elective courses taken above the 100 level.
- A 300-level research seminar, taken in the department during the fall semester of the senior year. (This is in addition to the six elective courses described above.)

- A combination of introductory and elective courses that includes representation of three of the five subfields, with work at the intermediate or advanced level in at least two subfields.
  - o Students may count some courses in either of the two subfields but not in both.
  - o With the consent of a member of the department, students may substitute two or three intermediate- or advanced-level courses from another department for the third subfield, where this serves to complement and strengthen the student's work within the department. For example, a student concentrating in international politics might offer international economics courses as a subfield; a student in comparative politics might offer courses in an area of study; a student in political theory might offer social and political philosophy courses; or a student in American politics might offer social policy courses. Students can count such substitutions towards fulfilling the subfield requirement only. They could not count these towards political science course credit and cannot use them to fulfill the introductory, elective, and seminar requirements outlined above.
- All senior majors write a thesis and complete an oral defense of the thesis through enrollment in 400.
- Related Studies: Four courses outside political science at Haverford or Bryn Mawr College that relate to the major. Examples of possible interests around which courses could cluster are: American or other area studies; political and social theory; international affairs; environmental policies; urban affairs; intermediate and advanced foreign language work related to work in the major; or courses from one or more of the other social sciences.

REQUIREMENTS FOR HONORS

The department awards honors to senior majors who have demonstrated excellence in their course work in political science and their senior thesis. The department may grant high honors to a select number of senior majors who have attained an outstanding level of distinction in their political science courses and senior thesis.

RESEARCH

Faculty have conducted research in Latin America, Africa, the Middle East, and Asia, and students have recently had opportunities to assist faculty members with field research in places like Guatemala and Mali. The department encourages students to supplement their classroom work by studying abroad applying for a grant from the College's Center for Peace and Global Citizenship (haverford.edu/cpgc) to undertake internships in other countries.

FACULTY

Anita Isaacs
Chair and Professor

Craig Borowiak
Associate Professor

Paulina Ochoa Espejo
Associate Professor

Steve McGovern
Associate Professor

Barak Mendelsohn
Associate Professor (on leave 2014–2015)

Zachary Oberfield
Assistant Professor

Susanna Wing
Associate Professor (on leave 2014–2015)

COURSES

121 AMERICAN POLITICS AND ITS DYNAMICS

The dynamics of the political process as seen in the Congress, the Presidency, and the judiciary. The role of interest groups, public opinion, and the political culture are also examined.

131 COMPARATIVE GOVERNMENT AND POLITICS

Anita Isaacs

An introduction to basic concepts and themes in comparative politics analyzed through case studies from around the world. Themes include political authority and governance structures; political culture and identity politics; political participation and representation; and political economy.

161 GLOBALIZATION

Craig Borowiak

An introduction to the major academic and policy debates over globalization and global

governance. Key themes will include: sovereignty, free/fair trade; immigration; anti-globalization and violence; democratic governance and international economic institutions; and the global justice movement.

171 INTRODUCTION TO POLITICAL THEORY: POWER, FREEDOM, AND (DIS)OBEDIENCE

An introduction to central concepts of political life through exploring the questions and problems surrounding democratic freedom, power, authority and citizenship. Reading from ancient, modern, and contemporary sources, literary as well as philosophical, American as well as European, will be included.

215 CONSTITUTIONAL LAW

An analysis of American constitutional law from the Founding to the late 20th century. This course examines the establishment of judicial review, the limits on congressional lawmaking, the growth of presidential authority, and the relationship between federal and state governments.

239 U.S.-LATIN AMERICAN RELATIONS

Anita Isaacs

Introduction to the study of U.S.-Latin American relations through an exploration of key issues that shape relations between the United States and countries in Latin America. It examines the history of U.S.-Latin relations as well as the U.S. and Latin American perspective on each of the policy issues reviewed, and concludes with a consideration of new ways of managing hemispheric relations.

243 GENDER AND SEXUALITY IN AFRICA AND THE MIDDLE EAST

Deborah Harrold

This course examines the historical and theoretical categories of gender and sexuality in the context of Africa and the Middle East. It analyzes the notion of "other" and difference and the politics and power surrounding "othering."

247 POLITICAL ECONOMY OF DEVELOPING COUNTRIES

Deborah Harrold

Explores concepts and dynamics of political and economic reform in developing countries and the social and international context in which policy is formulated and implemented. Combines theories of development with case studies from Africa, Latin America, and Asia.

261 GLOBAL CIVIL SOCIETY

Craig Borowiak

An introduction to the theories and debates behind the concept of a global civil society, and the role of transnational civil society actors in shaping global governance. Case studies of specific transnational networks, movements, and coalitions are examined.

265 POLITICS, MARKETS, AND THEORIES OF CAPITALISM

Craig Borowiak

Theoretical approach to the role of politics and markets in modern capitalism. Draws from the history of political economic thought (including Adam Smith, Marx, Karl Polanyi, Schumpeter and Hayek) and from contemporary political economists to address the meanings of "capitalism" and the effects of global makrets on dometic politics.

278 THE EARTH: ETHICS, POLITICS, AND ECONOMICS

Thomas J. Donahue

How should we deal with clashes among environmental values, economic growth, and what people want? Examines the clashing theories and interpretations of facts that underlie current environmental debates. Focus on climate change and inter-relations among ethical, political, and economic concerns.

315 PUBLIC POLICY ANALYSIS

Zachary Oberfield

Each student selects a public policy to analyze, looking at the nature of the problem being addressed as well as benefits, costs, and risks. Alternative policy solutions to the problem will be examined and a final proposal put forward. Prerequisite: Junior or Senior standing or consent of the instructor.

318 CONTEMPORARY POLITICAL THEORY

This course examines the main contemporary theories of politics by focusing on a central topic of political philosophy: How to justify authority. We explore how these political theories can be used to deal with contemporary problems as defined by particular interests of students in the course.

320 DEMOCRACY IN AMERICA
Stephen J. McGovern
This seminar explores some of the most pressing challenges to American democracy today, including the intensification of ideological and partisan polarization, increasing economic inequality, ongoing constraints faced by marginalized groups, and concerns about the diminishing quality of citizen participation in politics.

334 POLITICS OF VIOLENCE
Anita Isaacs
Examines the evolution, the nature and the causes of violent, intra-state conflict. It pays attention to assessing alternative explanations that include the fear and insecurity provoked by failing states, resource scarcity and the spread of infectious disease and/or a manipulative and self-serving leadership. It places these conflicts in the context of writings about collective violence, revolutions and genocide and asks about the contribution and the responsibility of the international community to resolving civil strife.

336 DEMOCRACY AND DEMOCRATIZATION
Anita Isaacs
The processes of democratization in historical and comparative perspective. It investigates the meaning of democracy and assesses factors that facilitate or impede democratic transition and durability; including strategies of elites, civil society and external actors, civil-military relations, institutional design and the relationship between democratization and economic transformation.

361 DEMOCRACY AND GLOBAL GOVERNANCE
Craig Borowiak
Examination of contemporary theoretical and practical debates about the extension of democratic principles beyond the nation-state. This course explores sources of legitimacy in world politics and consider innovative ways to cope with global power asymmetries and democratic deficits caused by globalization.

375 CONTEMPORARY POLITICAL THEORY
Paulina Ochoa Espejo
This course examines the main contemporary theories of politics by focusing on a central topic of political philosophy: How to justify authority. We explore how these political theories can be used to deal with contemporary problems as defined by particular interests of students in the course.

400 SENIOR THESIS
Anita Isaacs
This course consists of tutorials and intensive research, culminating in a senior thesis.

COURSES OFFERED AT BRYN MAWR

FALL

131 COMPARATIVE POLITICS
141 INTRODUCTION TO INTERNATIONAL POLITICS
220 TOPICS IN CONSTITUTIONAL LAW
224 COMPARATIVE POLITICAL PHILOSOPHY
231 INTRODUCTION TO POLITICAL PHILOSOPHY: MODERN
251 POLITICS AND THE MASS MEDIA
324 THE ARAB UPRISINGS
358 POLITICAL PSYCHOLOGY OF GROUP IDENTIFICATION
367 CHINA AND THE WORLD
371 TOPICS IN POLITICAL PHILOSOPHY
391 INTERNATIONAL POLITICAL ECONOMY
398 SENIOR CONFERENCE

SPRING

121 INTRODUCTION TO AMERICAN POLITICS
212 QUALITATIVE METHODS
222 INTRODUCTION TO ENVIRONMENTAL ISSUES: POLICY MAKING IN COMPARATIVE PERSPECTIVE
228 INTRODUCTION TO POLITICAL PHILOSOPHY: ANCIENT AND EARLY MODERN
243 AFRICAN AND CARIBBEAN PERSPECTIVES IN WORLD POLITICS
245 PHILOSOPHY OF LAW
249 POLITICAL ECONOMY OF DEVELOPMENT
253 FEMINIST THEORY
273 RACE AND THE LAW IN THE AMERICAN CONTEXT
283 INTRODUCTION TO THE POLITICS OF THE MODERN MIDDLE EAST AND NORTH AFRICA
290 POWER AND RESISTANCE
334 THREE FACES OF CHINESE POWER: MONEY, MIGHT, AND MINDS
344 DEVELOPMENT ETHICS
354 COMPARATIVE SOCIAL MOVEMENTS
371 TOPICS IN POLITICAL PHILOSOPHY
375 GENDER, WORK AND FAMILY
378 ORIGINS OF AMERICAN CONSTITUTIONALISM
399 SENIOR ESSAY

PSYCHOLOGY

haverford.edu/psychology

The psychology program helps students to:
• understand the causes, functions, development, and evolution of behavior and experience.
• integrate this understanding with biological, sociocultural, and philosophical perspectives on behavior.
• develop competence in all aspects of psychological research, ranging from the creation of research questions to the analysis and reporting of research findings.
The department provides students with an understanding of human behavior that will support their ability to participate as informed members of our society, to help others, and to add to scientific knowledge. Students will:
• gain a broad understanding of human behavior, from a variety of perspectives.
• learn to treat questions and claims about behavior rigorously, with an empirical approach.
• master the skills to contribute new knowledge in the field (Related Teagle Assessment Project: Assessment of preparedness for senior research experience)

CURRICULUM

MAJOR REQUIREMENTS

1. One semester of introductory psychology: PSYC 100 Foundations of Psychology.
2. PSYC 200 Experimental Methods and Statistics, or Bryn Mawr PSYC 205.
3. Six additional psychology courses beyond the introductory level, with at least one taken from each of the following groups:
   a) Social and Personality Psychology – PSYC 209, 215, 221, 224, 225, 242, 250, 309, 325;
   b) Biological Psychology – PSYC 217, 221, 240, 250, 260, 370;
   c) Cognition – PSYC 213, 220, 238, 260.
4. Two half-credit laboratory courses, which should be completed by the end of the junior year.
5. One of the following senior thesis options:
   a) two semesters of empirical senior research or
   b) a one semester non-empirical senior thesis and an additional psychology course beyond the introductory level.

We strongly advise students expecting to go on to graduate study in any area of psychology to choose the empirical research option. We accept equivalent courses at Bryn Mawr or other institutions (with permission of the department) to fulfill major requirements.

MINOR REQUIREMENTS

The Haverford minor in psychology consists of six credits in psychology including: PSYC 100 (Foundations of Psychology), and five additional psychology courses beyond the introductory level, with at least one from two of the following groups:

1. Social and Personality Psychology: PSYC 209, 215, 224, 225, 242, 250, 325
2. Biological Psychology: PSYC 217, 240, 250, 260, 350, 370
3. Cognition: PSYC 213, 220, 238, 260.

CONCENTRATION IN NEURAL AND BEHAVIORAL SCIENCE

Haverford psychology majors may also elect to complete a minor in neuroscience. See the entry in this catalog for Neural and Behavioral Science Minor for relevant requirements.

REQUIREMENTS FOR HONORS

The department awards honors to majors who show exceptionally high attainment in their coursework and demonstrate work in Senior Research or Senior Thesis and related research courses that is of superior quality.

FACULTY

Benjamin Le
Chair and Associate Professor

Marilyn G. Boltz
Professor

Rebecca J. Compton
Professor

Jennifer Lilgendahl
Associate Professor

Shu-wen Wang
Assistant Professor

COURSES

100 FOUNDATIONS OF PSYCHOLOGY

Seth Jefferson Gillihan, Elizabeth Gordon, Shu-wen Wang

An introduction to the study of mind and behavior. Topics include biological, cognitive, personality, abnormal, and social psychology, as well as a general consideration of the empirical approach to the study of behavior.

200B EXPERIMENTAL METHODOLOGY AND STATISTICS

Benjamin Le

Three hours lecture, one 90-mintue lab/ week plus time spent collecting data outside of scheduled lab hours. A general overview of the experimental method and its use in the psychological study of behavior, coupled with in-depth treatment of statistics as applied to psychology research. Lab exercises focus on designing experiments, collecting data, applying statistical methods (using a commercial data analysis software package), and presenting data through written assignments.

209 ABNORMAL PSYCHOLOGY

Seth Jefferson Gillihan

215 INTRODUCTION TO PERSONALITY PSYCHOLOGY

Jennifer Lilgendahl

An examination of the fundamental issues and questions addressed by personality psychology, including: What is personality? What are its underlying processes and mechanisms? How does personality develop and change over time? What constitutes a healthy personality? This course explores these questions by considering evidence from several major approaches to personality (trait, psychodynamic, humanistic, and social-cognitive), and it encourages students to develop a dynamic understanding of human personality that is situated within biological, social, and cultural contexts.

217 BIOLOGICAL PSYCHOLOGY

Mary Ellen Kelly

220 PSYCHOLOGY OF TIME

Marilyn Boltz

An examination of the various ways in which people experience time and how time influences psychological behavior. Topics include: the perception of rhythm, tempo, and duration; temporal perspective; societal concepts of time; and neural substrates of temporal behavior.

222A EVOLUTIONARY AND COMPARATIVE PSYCHOLOGY

Elizabeth Gordon

223 PSYCHOLOGY OF HUMAN SEXUALITY

Elizabeth Gordon

An overview course on human sexuality, from biological, psychological, behavioral, and cultural perspectives. Focuses on the methods and techniques used to study human sexuality and how scientific knowledge about human sexuality informs attitudes about the political and ethical aspects of sexuality. Students analyze the assumptions and evidence that others use when making claims about sexuality.

242 CULTURAL PSYCHOLOGY

Shu-wen Wang

An examination of cultural variations in psychological process, covering development, personality, social behavior, neuroscience and genetics, and acculturation and multiculturalism.

245 HEALTH PSYCHOLOGY

Thomas Wadden

260 COGNITIVE NEUROSCIENCE

Rebecca Compton

280 APPLIED SOCIAL PSYCHOLOGY

An introduction to classic and contemporary applied social psychology, with a focus on analyzing and understanding social and personal

problems as well as developing interventions aimed at improving the functioning for individuals and groups.

303 PSYCHOLOGY OF MUSIC

Marilyn Boltz

What functions does music serve and how does it influence behavior? This course examines the evolutionary and biological bases of music, and its effects upon cognition, social behavior, and our sense of self and identity.

Pre-Requisite(s): PSYC 100, 200, and one 200-level course in cognitive psychology, such as PSYC H213, H220, H238, or PSYC B212.

312 SLEEP AND CIRCADIAN RHYTHMS

Daniel Cavanaugh

An examination of circadian rhythms and application of these processes to understanding sleep. The course spans from cellular and molecular mechanisms to systems and behavioral approaches, and includes pathologies of these systems that lead to human disorders.

315F LAB PERSONALITY PSYSCHOLOGY

Jennifer Lilgendahl

An overview of methods used to conduct research on personality. Through lab activities and class projects, students learn about important methodological topics within the study of personality, including measurement, reliability and validity, different modes of data collection (self-report questionnaires, interviews and narratives, observational and experimental approaches), and how to analyze and interpret personality data.

318 NEUROBIOLOGY OF DISEASE

Mary Ellen Kelly

A survey of disorders of the central nervous system, providing both a clinical perspective on the disease and research-based outlook focused on the pathophysiological mechanisms that underlie the disease state.

320 LAB IN THE PSYCH OF TIME

Marilyn Boltz

An overview of the different methodologies used in the psychological study of time. During laboratory sessions, students will explore some different temporal phenomena through the use of the empirical method and both the collection and analysis of statistical data.

324 SOCIAL PSYCHOLOGY LAB

Benjamin Le

325A DYADIC PROCESSES

Benjamin Le

This course is an in-depth examination of the field of close relationships. It emphasizes the major theories of close relationship, including examinations of evolutionary, attachment, interdependence, and cognitive approaches. In addition, we explore research related to topics such as attraction, relationship development and maintenance, relationships and health, infidelity, violence in intimate relationships, and jealousy, with methodical concerns discussed within the context of each topic.

327 OBESITY EPIDEMIC

Thomas Wadden

An examination of the causes and consequences of obesity at individual and societal levels. Focuses on mechanisms of body weight regulation along with the wide-scale changes in diet, eating habits, and physical activity that have contributed to the obesity epidemic.

335 SELF AND IDENTITY

Jennifer Lilgendahl

Who am I? How do I feel about myself? What is the story of my life? How people answer such questions and the implications of their answers, both over time and across situations in their lives, are the issues that are at the heart of this course on self and identity. Through a combination of lecture and discussion, we will examine the literature on self and identity from multiple disciplinary perspectives (biological, developmental, personality, social, and clinical) and apply scientific concepts to the analysis of socially important issues, current events, popular culture, and our own life experiences. Specific topics to be addressed include self and identity development in childhood and adolescence, self-esteem and its consequences, gender and self, culture and ethnic identity development, stigmatized selves and prejudice, and the connection between self/identity and mental health.

349 ANXIETY DISORDERS

Elizabeth Gordon

This seminar is in-depth examination of the etiology, maintenance, and treatment of mental disorders characterized by extreme and pervasive

anxiety, including specific phobias, panic disorder, obsessive compulsive disorder, post-traumatic stress disorder, social anxiety disorder, and generalized anxiety disorder.

360 LAB IN COGNITIVE NEUROSCIENCE
Rebecca Compton
An examination of methodologies used to study the neural basis of higher mental functions. Students utilize both cognitive and electrophysiological (EEG, ERP) recording methods, and will examine methodological issues in hemodynamic neuroimaging and the study of patient populations. A half-credit course.

391 SENIOR RESEARCH TUTORIAL IN COGNITION
Marilyn Boltz

392 SENIOR RESEARCH TUTORIAL IN PERSONALITY
Jennifer Lilgendahl

393 SENIOR RESEARCH TUTORIAL: SOCIAL PSYCHOLOGY
Benjamin Le

395 SENIOR RESEARCH TUTORIAL: COGNITIVE NEUROSCIENCE
Rebecca Compton

396 SENIOR RESEARCH TUTORIAL: CLINICAL PSYCHOLOGY
Seth Jefferson Gillihan

COURSES OFFERED AT BRYN MAWR

Most Bryn Mawr Psychology courses count toward the major at Haverford, with the following designations. Bryn Mawr Psychology courses that are not listed do count toward the major, but may not count toward core area requirements within the major.

FALL

208 SOCIAL PSYCHOLOGY
209 ABNORMAL PSYCHOLOGY
224 CROSS-CULTURAL PSYCHOLOGY
250 AUTISM SPECTRUM DISORDERS
231 HEALTH PSYCHOLOGY
312 HISTORY MODERN AMERICAN PSYCHOLOGY
323 COGNITIVE NEUROSCIENCE
325 JUDGMENT AND DECISION MAKING
358 POLITICAL PSYCHOLOGY: ETHNICAL CONFLICT
375 MOVIES AND MADNESS
401 SUPERVISED RESEARCH: NEURAL/BEHAVIORAL SCIENCE

SPRING

105 INTRODUCTORY PSYCHOLOGY
160 FOCUS: PSYCHOLOGY OF NEGOTIATIONS
206 DEVELOPMENTAL PSYCHOLOGY
218 BEHAVIORAL NEUROSCIENCE
230 FORENSIC PSYCHOLOGY
240 EVOLUTION OF HUMAN NATURE
310 ADVANCED DEVELOPMENTAL PSYCHOLOGY
322 CULTURE AND DEVELOPMENT
351 DEVELOPMENTAL PSYCHOPATHOLOGY
353 ADVANCED TOPICS IN CLINICAL PSYCHOLOGY: MINDFULLNESS
395 PSYCHOPHARMACOLOGY
399 SENIOR SEMINAR
401 SUPERVISED RESEARCH: NEURAL/BEHAVIORAL SCIENCE
403 SUPERVISED RESEARCH

RELIGION
haverford.edu/relg

The Department of Religion views religion as a central aspect of human culture and social life. Religions propose interpretations of reality, shape very particular forms of life, and make use of many aspects of human culture, including art, architecture, music, literature, science, and philosophy, as well as countless forms of popular culture and daily behavior. Consequently, the fullest and most rewarding study of religion is interdisciplinary in character, drawing upon approaches and methods from disciplines such as anthropology, comparative literature and literary theory, gender theory, history, philosophy, psychology, political science, and sociology.

A central goal of the department is to enable students to become critically informed, independent, and creative interpreters of some of the religious movements, sacred texts, ideas, and practices that have decisively shaped human experience. We encourage students to engage in the breadth of scholarship in the study of religion as well as to develop skills in the critical analysis of the texts, images, beliefs, and performances of various religious traditions, including Judaism, Christianity, Islam and Buddhism. The department's programs help students understand how religions develop and change, and how religious texts, symbols, and rituals inform communities and cultures.

Students especially interested in Asian religions may work out a program of study in conjunction with the East Asian Studies department at Haverford and Bryn Mawr and with the Religion department at Swarthmore. Like other liberal arts majors, the religion major is meant to prepare students for a broad array of vocational possibilities. Religion majors typically find careers in law, public service (including both religious and secular organizations), medicine, business, ministry, and education. Religion majors have also pursued advanced graduate degrees in anthropology, history, political science, biology, Near Eastern studies, and religious studies.

CURRICULUM

MAJOR

The Haverford Religion major is unique in that it provides students with a comprehensive curriculum that includes carefully designed areas of concentrations, specialized coursework, supervised research, a lengthy written research product, and a departmental oral conversation with the entire department as the minimum requirements for fulfilling the major. The major in Religion encourages interdisciplinary work across the entire Haverford curriculum. Majors are expected to take a range of courses covering different aspects of various religious traditions, while also developing special expertise in one of three approaches to the study of religion (see section a, below).

MAJOR REQUIREMENTS

1. Six courses within one of the department's three areas of concentration:
   - **Religious Traditions in Cultural Context**
     The study of religious traditions and the textual, historical, sociological, and cultural contexts in which they develop. Critical analysis of formative texts and issues that advance our notions of religious identities, origins, and ideas.
   - **Religion, Literature, and Representation**
     The study of religion in relation to literary expressions and other forms of representation, such as performance, music, film, and the plastic arts.
   - **Religion, Ethics, and Society**
     The exploration of larger social issues such as race, gender, and identity as they relate to religion and religious traditions. Examines how moral principles, cultural values, and ethical conduct help shape human societies. Where appropriate and relevant to the major's concentration program, the student may count up to three courses for the major from outside the field of religion toward the area of concentration, subject to departmental approval.
2. Junior Colloquium: required of junior majors once each semester. Students should complete a

worksheet in advance in consultation with their major adviser and bring copies of the completed worksheet to the meeting.

3. Senior Colloquium: required of senior majors in the fall semester, with senior religion majors from Swarthmore. We invite a recognized scholar in the field to lead an evening seminar in the study of religion.
4. Religion 399b (Senior Seminar and Thesis).
5. At least four additional half-year courses drawn from outside the major's area of concentration.

Students must take at least six of each major's 11 courses in the Haverford religion department. In some rare cases, students may petition the department for exceptions to the major requirements and must presented such petitions to the department for approval in advance. (See below for details about credit for study abroad.)

SENIOR THESIS

Final evaluation of the major program consists of work completed in Religion 399b (Senior Seminar), which consists of five stages:

I. formulation of a thesis proposal
II. presentation of the proposal
III. presentation of a portion of work in progress
IV. writing and submission of first and final drafts
V. oral discussion with department faculty

REQUIREMENTS FOR HONORS

The department awards honors and high honors in religion on the basis of the quality of work in the major and in Religion 399b (Senior Thesis).

STUDY ABROAD

Students planning to study abroad must construct their programs in advance with the department. Students seeking religion credit for abroad courses must write a formal petition to the department upon their return and submit all relevant course materials. We advise students to petition courses that are within the designated area of concentration.

FACULTY

Naomi Koltun-Fromm
Chair and Associate Professor

Tracey Hucks
(one leave for 2014–15 academic year)
Professor

Kenneth Koltun-Fromm
Professor

Anne M. McGuire
Kies Family Associate Professor in the Humanities

Travis Zadeh
Associate Professor

COURSES

111A INTRODUCTION TO HINDUISM

Chloe Martinez

An introduction to the diverse and fluid tradition known as Hinduism, which we examine through the many streams that feed into it: theological and philosophical beliefs, ritual and devotional practices, literature, visual art, music, and drama.

122B INTRODUCTION TO THE NEW TESTMNT

Anne Marie McGuire

An introduction to the New Testament and early Christian literature. Class devotes special attention to the Jewish origins of the Jesus movement, the development of traditions about Jesus in the earliest Christian communities, and the social contexts and functions of various texts. Readings include non-canonical writings, in addition to the writings of the New Testament canon.

124A INTRODUCTION TO CHRISTIAN THOUGHT

Elaine Marie Beretz

An examination of some central concepts of the Christian faith, approached within the context of contemporary theological discussion. Course considers sasic Christian ideas in relation to one another and with attention to their classic formulations, major historical transformations, and recent reformulations under the pressures of modernity and postmodernity.

128A SACRED TEXTS

Kenneth A. Koltun-Fromm

An introduction to reading sacred texts in an academic setting. In this course we apply a variety of methodological approaches—literary, historical, sociological, anthropological, or philosophical—to the reading of religious texts, documents, and materials.

130B MATERIAL RELIGION IN AMERICA

Kenneth A. Koltun-Fromm

132A VARIETIES OF THE AFRICAN AMERICAN RELIGIOUS EXPERIENCE

This course examines the history of religion in America as it spans several countries. Each week lectures, readings, and discussions explore the phenomenon of religion within American society. The goal is to introduce students to American religious diversity as well as its impact in the shaping of larger historical and social relationships within the United States. This study of American religion, not intended to be exhaustive, covers select traditions each semester.

140A INTRODUCTION TO ISLAMIC PHILOS

Jamel A. Velji

This course is a survey of major thinkers and debates in Islamic intellectual history. We discuss how these thinkers addressed theological concerns such as God's attributes in light of divine unity; freewill versus predestination; and mysticism and philosophy as legitimate means of divine worship.

155B THEMES ANTH RELG

Zolani Noonan-Ngwane

What is it that rituals actually do? Are they enactments (affirmations) of collective ideals or are they arguments about these? Are they media for political action or are they expressions of teleological phenomena? The course is a comparative study of ritual and its place in religious practice and political argumentation. Concrete case studies include an initiation ritual in South Africa, the Communion Sacrament in Christianity, a Holocaust commemorative site in Auschwitz, and the cult of spirit-possession in Niger. Enrollment limited to 20. Preference to freshmen and sophomores.

202B THE END OF THE WORLD

Jamel A. Velji

Why are people always predicting the coming endtime? This course explores the genre of apocalypse, looking for common themes that characterize this form of literature. We draw our primary source readings from the Bible and non-canonical documents from the early Jewish and Christian traditions. We use an analytical perspective to explore the social functions of apocalyptic, and ask why this form has been so persistent and influential.

203A THE HEBREW BIBLE AND INTERPRETATIONS

Naomi Koltun-Fromm

In this course students critically study select Hebrew Biblical passages (in translation), as well as Jewish and Christian Biblical commentaries, in order to better understand how ancient and modern readers alike have read, interpreted, and explained Hebrew Biblical texts. Students also learn to read the texts critically and begin to form their own understandings of them.

208A THE POETICS OF RELIGIOUS EXPERIENCE IN SOUTH ASIA

Chloe Martinez

An examination of religious poetry from three South Asian traditions: Hinduism, Islam, and Sikhism. Topics may include poetry and religious experience, poetry as locus of inter-religious dialogue, and poetry as religious critique.

221A WOMEN AND GENDER IN EARLY CHRISTIANITY

Anne Marie McGuire

An examination of the representations of women and gender in early Christian texts and their significance for contemporary Christianity. Topics include interpretations of Genesis 1-3, images of women and sexuality in early Christian literature, and the roles of women in various Christian communities.

222B GNOSTICISM

Anne Marie McGuire

The phenomenon of Gnosticism examined through close reading of primary sources, including the recently discovered texts of Nag Hammadi. Topics include the relation of Gnosticism to Greek, Jewish, and Christian thought; the variety of Gnostic schools and sects; and gender imagery, mythology and other issues in the interpretation of Gnostic texts.

240A THE HISTORY AND PRINCIPLES QUAKERISM
Emma Lapsansky
The development of Quakerism and its relationship to other religious movements and to political and social life, especially in America. The roots of the Society of Friends in 17th-century Britain and the expansion of Quaker influences among Third World populations, particularly the Native American, Hispanic, east African, and Asian populations.

256A ZEN THOUGHT, CULTURE, AND HISTORY
Hank Glassman
What are we talking about when we talk about Zen? This course is an introduction to the intellectual and cultural history of the style of Buddhism known as Zen in Japanese. We examine the development and expression of this religious movement in China, Korea, Japan, and Vietnam.

267B RELIGION AND POETRY
Chloe Martinez
An exploration of the relationship between religion and poetry, using both sacred and secular poetic texts. How is poetic language used to express religious ideas? How do sacred texts inform secular poetry? Assignments include both critical and creative writing. Enrollment Limit: 25. In case of over-enrollment, priority goes to students with sophomore standing or higher.

299B THEORY AND STUDY OF RELIGION
Jamel A. Velji
An introduction to theories of the nature and function of religion from theological, philosophical, psychological, anthropological, and sociological perspectives. Readings may include: Schleiermacher, Marx, Nietzche, Freud, Tylor, Durkheim, Weber, James, Otto, Benjamin, Eliade, Geertz, Foucault, Douglas, Smith, Berger, and Haraway.

301B RELIGIOUS TRADITIONS IN CULTURAL CONTEXT
Naomi Koltun-Fromm
This seminar examines the relationship between religion and magic as expressed in various historical and geographical contexts, with particular attention to the significance of these categories in the development of Orientalist art, literature, and scholarship.

303A SEMINAR IN RELIGION, LITERATURE, AND REPRESENTATION
Chloe Martinez
This seminar considers autobiography as both a literary genre and a mode of speech that has often been used to talk about religion. What does the autobiographical voice allow authors to say about religious experience and belief? How are religious selves constructed and presented in this most self-reflexive of forms? Our discussion draws upon the methodologies of both literary theory and religious studies, and autobiographical examples range across time, space, and religious traditions.

305A MAHDIS AND THEIR MOVEMENTS
Jamel A. Velji
The exploration of larger social issues such as race, gender, and identity as they relate to religion and religious traditions. Examines how moral principles, cultural values, and ethical conduct help to shape human societies. Topics and instructors change from year to year.

330A RELIGIOUS HISTORY OF AFRICAN AMERICAN WOMEN
This seminar examines the writings of women of African descent from Africa, North America, and the Caribbean. Using primary and secondary texts from the nineteenth to the 20th centuries, this course explores the various religious traditions, denominations, sects, and religious and cultural movements in which women of African descent have historically participated. The course also analyzes the ways in which specific social conditions and cultural practices have historically influenced the lives of these women within their specific geographical contexts.

399 SENIOR SEMINAR AND THESIS
Kenneth A. Koltun-Fromm/Anne Marie McGuire/ Jamel A. Velji

480A INDEPENDENT STUDY
Tracey E. Hucks
Conducted through individual tutorial as an independent reading and research project.

ROMANCE LANGUAGES AT BRYN MAWR COLLEGE

brynmawr.edu/romance

Students may complete a major in Romance Languages. The Departments of French and Francophone Studies, Italian, and Spanish cooperate in offering a major in Romance Languages that requires advanced work in at least two Romance languages and literatures. Additional work in a third language and literature is suggested.

CURRICULUM

MAJOR REQUIREMENTS

The requirements for the major are a minimum of nine courses, including the Senior Conference and/or Senior Essay, described below, in the first language and literature and six courses in the second language and literature, including the Senior Conference in French, if French is selected as second. Students should consult with their advisors no later than their sophomore year in order to select courses in the various departments that complement each other.

Students must complete a writing requirement in the major. Students work with their major advisors in order to identify either two writing attentive or one writing intensive course within their major plan of study.

Students should consult with their advisors no later than their sophomore year in order to select courses in the various departments that complement each other.

Haverford students intending to major in Romance Languages must have their major work plan approved by a Bryn Mawr College advisor.

The following sequence of courses is recommended when the various languages are chosen for primary and secondary concentration, respectively *(see the departmental listings for course descriptions).*

WRITING REQUIREMENT

Students must complete a writing requirement in the major. Students will work with their major advisors in order to identify either two writing attentive or one writing intensive course within their major plan of study.

COORDINATORS

Grace M. Armstrong
Chair and Eunice M. Schenck 1907 Professor of French and Director of Middle Eastern Languages (on leave spring semester), French Advisor

Maria Cristina Quintero
Professor of Spanish and Co-Director of Comparative Literature (Bryn Mawr College) [Co-Director fall semester; on leave spring semester]; Spanish Advisor fall semester

Martin Gaspar
Assistant Professor of Spanish and Interim Coordinator of Romance Languages (Interim Coordinator spring semester); Spanish Advisor spring semester

David Cast
Professor of History of Art and the Eugenia Chase Guild Chair in the Humanities; Italian Advisor

COURSES

FIRST LANGUAGE AND LITERATURE

FRENCH

FREN 101-102 or 101-105; or 005-102 or 005-105. Four literature courses at the 200 level, including FREN 213. Advanced language course: FREN 260 (BMC) or 212 (HC). Two courses at the 300 level.

ITALIAN

ITAL 101, 102. Four courses at the 200 level. Three courses at the 300 level.

SPANISH

SPAN 110. SPAN 120. Four courses at the 200 level. Two courses at the 300 level.

SECOND LANGUAGE AND LITERATURE

FRENCH

FREN 101-102 or 101-105; or 005-102 or 005-105. Two literature courses at the 200 level. FREN 260 (BMC) or 212 (HC). One course at the 300 level.

ITALIAN

ITAL 101, 102. Two literature courses at the 200 level. Two literature courses at the 300 level.

SPANISH

SPAN 200 SPAN 202. Two courses at the 200 level. Two courses at the 300 level.

In addition to the coursework described above, when the first language and literature is Spanish, majors in Romance Languages must enroll in SPAN 398 (Senior Seminar).* When students choose French as either the first or second language, they must take the first semester Senior Conference in French (FREN 398) in addition to the coursework described above.** When students choose Italian, students must take ITAL 398 and ITAL 399, offered in consultation with the department, in addition to the coursework described above in order to receive honors.*** An oral examination (following the current model in the various departments) may be given in one or both of the two languages, according to the student's preference, and students follow the practice of their principal language as to written examination or thesis. Please note that 398 does not count as one of the two required 300-level courses.

Interdepartmental courses at the 200 or 300 level are offered from time to time by the cooperating departments. These courses are conducted in English on such comparative Romance topics as epic, romanticism, or literary vanguard movements of the 20th century. Students should be able to read texts in two of the languages in the original.

* In order to receive honors, students whose first language is Spanish should have a minimum 3.7 GPA in Spanish and are required to write a senior essay (SPAN 399).

** For students whose first language is French, honors are awarded on the basis of performance in Senior Conference and on a successfully completed thesis (FREN 403) or senior essay, the latter completed in a third 300-l. course in semester II of senior year.

*** In order to receive honors, students whose first language is Italian are required to write a senior essay (ITAL 398 and ITAL 399)

RUSSIAN AT BRYN MAWR COLLEGE

brynmawr.edu/russian

Students may complete a major or minor in Russian.

The Russian major is a multidisciplinary program designed to provide students with a broad understanding of Russian culture and the Russophone world. The major places a strong emphasis on the development of functional proficiency in the Russian language. Language study is combined with a specific area of concentration to be selected from the fields of Russian literature, history, economics, language/linguistics, or area studies.

COLLEGE FOREIGN LANGUAGE REQUIREMENT

Before the start of the senior year, each student must complete, with a grade of 2.0 or higher, two units of foreign language. Students may fulfill the requirement by completing two sequential semester-long courses in one language, beginning at the level determined by their language placement. A student who is prepared for advanced work may complete the requirement instead with two advanced free-standing semester-long courses in the foreign language(s) in which she is proficient.

MAJOR REQUIREMENTS

A total of 10 courses is required to complete the major: two in Russian language at the 200 level or above; four in the area of concentration, two at the 200 level and two at the 300 level or above (for the concentration in area studies, the four courses must be in four different fields); three in Russian fields outside the area of concentration; and either RUSS 398, Senior Essay, or RUSS 399, Senior Conference.

Russian majors have the option of fulfilling the College's writing requirement through Writing Attentive (WA) courses either through upper-level Russian language courses, where the focus is on writing in Russian, or through 200-level courses on Russian literature (in translation), culture or film, where the focus is on writing in English. Majors also have the option of completing one WA course in Russian and one WA course in English.

Majors are encouraged to pursue advanced language study in Russia in summer, semester, or yearlong academic programs. Majors may also take advantage of intensive immersion language courses offered during the summer by the Bryn Mawr Russian Language Institute. As part of the requirement for RUSS 398/399, all Russian majors take senior comprehensive examinations that cover the area of concentration and Russian language competence.

MINOR REQUIREMENTS

Students wishing to minor in Russian must complete six units at the 100 level or above, two of which must be in the Russian language.

HONORS REQUIREMENTS

All Russian majors are considered for departmental honors at the end of their senior year. The awarding of honors is based on a student's overall academic record and all work done in the major.

FACULTY

Timothy Harte
Chair and Associate Professor of Russian

Elizabeth Allen
Professor of Russian and Comparative Literature

Dan E. Davidson
Professor of Russian on the Myra T. Cooley Lectureship in Russian and Director of the Russian Language Institute

Walsh Irina
Lecturer in Russian

Marina Rojavin
Lecturer in Russian

COURSES

B001 ELEMENTARY RUSSIAN INTENSIVE

D. Davidson, I. Walsh

Study of basic grammar and syntax. Fundamental skills in speaking, reading, writing, and oral comprehension are developed. Eight hours a week including conversation sections and language laboratory work.

B002 ELEMENTARY RUSSIAN INTENSIVE

D. Davidson, I. Walsh

Study of basic grammar and syntax. Fundamental skills in speaking, reading, writing, and oral comprehension are developed. Eight hours a week including conversation sections and language laboratory work.

B101 INTERMEDIATE RUSSIAN

I. Walsh

Continuing development of fundamental skills with emphasis on vocabulary expansion in speaking and writing. Readings in Russian classics and contemporary works. Five hours a week

B102 INTERMEDIATE RUSSIAN

I. Walsh

Continuing development of fundamental skills with emphasis on vocabulary expansion in speaking and writing. Readings in Russian classics and contemporary works. Five hours a week.

B115 THE GOLDEN AGE OF RUSSIAN LITERATURE

An introduction to the great 19th Century Russian authors and some of their most famous, seminal works, including Pushkin's "The Queen of Spades" and Eugene *Onegin*, Gogol's *The Inspector General* and "The Overcoat," Turgenev's Fathers and Sons, Dostoevksy's "The Double" and "White Nights" and Tolstoy's *Childhood, Boyhood, and Youth*. All readings, lectures, and discussions are conducted in English.

B120 FOCUS: RUSSIAN MEMOIRS: SEEKING FREEDOM WITHIN BOUNDARIES

This course examines memoirs by Russian women who either have spent time as political or wartime prisoners or have challenged socially constructed boundaries through their choice of profession. Students will explore the socio-historical contexts in which these women lived and the ways in which they created new norms in extraordinary circumstances. No knowledge of Russian is required.

B130 FOCUS: RUSSIAN DISSIDENTS AND THE CULTURE OF 'VNYE'

This is a half semester focus course. This course explores Russian dissident memoirs and considers these works as a form of testimonial writing by those who were exiled - physically or socially - during times of heavy media and literary censorship. Class discussions will also examine the ways this body of work served to bear witness on behalf of those who operated outside ('vnye') of society and acted as an alternative justice system, condemning or justifying 'criminal' behavior. Half semester Focus course.

B201 ADVANCED RUSSIAN

M. Rojavin

Intensive practice in speaking and writing skills using a variety of modern texts and contemporary films and television. Emphasis on self-expression and a deeper understanding of grammar and syntax. Five hours a week.

B202 ADVANCED RUSSIAN

M. Rojavin

Intensive practice in speaking and writing skills using a variety of modern texts and contemporary films and television. Emphasis on self-expression and a deeper understanding of grammar and syntax. Five hours a week.

B215 RUSSIAN AVANT-GARDE ART, LITERATURE AND FILM

This course focuses on Russian avant-garde painting, literature and cinema at the start of the 20th century. Moving from Imperial Russian art to Stalinist aesthetics, we explore the rise of non-objective painting (Malevich, Kandinsky, etc.), ground-breaking literature (Bely, Mayakovsky), and revolutionary cinema (Vertov, Eisenstein). No knowledge of Russian required.

B221 THE SERIOUS PLAY OF PUSHKIN AND GOGOL

T. Harte

This course explores major contributions to the modern Russian literary tradition by its two founding fathers, Aleksander Pushkin and Nikolai Gogol. Comparing short stories, plays, novels, and letters written by these pioneering artists, the course addresses Pushkin's and Gogol's shared concerns about human freedom, individual will, social injustice, and artistic autonomy, which each author expressed through his own distinctive filter of humor and playfulness. No knowledge of Russian is required.

B223 RUSSIAN AND EAST EUROPEAN FOLKLORE
This interdisciplinary course introduces students to major issues in Russian and East European folklore including epic tales, fairy tales, calendar and life-cycle rituals, and folk beliefs. The course also presents different theoretical approaches to the interpretation of folk texts as well as emphasizes the influence of folklore on literature, music, and art. No knowledge of Russian is required.

B235 THE SOCIAL DYNAMICS OF RUSSIAN
D. Davidson, I. Walsh
An examination of the social factors that influence the language of Russian conversational speech, including contemporary Russian media (films, television, and the Internet). Basic social strategies that structure a conversation are studied, as well as the implications of gender and education on the form and style of discourse. Prerequisites: RUSS 201, 202, may be taken concurrently.

B238 TOPICS: THE HISTORY OF CINEMA 1895 TO 1945
This is a topics course. Course content varies.

B243 THE ART OF EXILE: EMIGRATION IN FICTION, FILM, AND PAINTING
This course explores a diverse range of films (Akin, Fassbinder), paintings (Chagall, Rothko), and fictional prose works (Nabokov, Sebald) that probe the experience of exile and emigration. We will focus primarily on Russian émigré culture, 20th-century Jews, American immigrants, and the Turkish community in Hamburg, Germany.

B253 THEORY IN PRACTICE: CRITICAL DISCOURSES IN THE HUMANITIES
An examination in English of leading theories of interpretation from Classical Tradition to Modern and Post-Modern Time. This is a topics course. Course content varies.

B254 RUSSIAN CULTURE AND CIVILIZATION
A history of Russian culture—its ideas, its value and belief systems—from the origins to the present that integrates the examination of works of literature, art, and music.

RUSS B258 SOVIET AND EASTERN EUROPEAN CINEMA OF THE 1960S
T. Harte
This course examines 1960s Soviet and Eastern European "New Wave" cinema, which won worldwide acclaim through its treatment of war, gender, and aesthetics. Films from Czechoslovakia, Hungary, Poland, Russia, and Yugoslavia will be viewed and analyzed, accompanied by readings on film history and theory. All films shown with subtitles; no knowledge of Russian or previous study of film required.

B261 THE RUSSIAN ANTI-NOVEL
A study of 19th- and 20th-century Russian novels focusing on their strategies of opposing or circumventing European literary conventions. Works by Bulgakov, Dostoevsky, Nabokov, Pushkin, and Tolstoy, are compared to Jane Austen's *Pride and Prejudice* and other exemplars of the Western novelistic tradition. All readings, lectures, and discussions in English.

B271 CHEKHOV: HIS SHORT STORIES AND PLAYS IN TRANSLATION
T. Harte
A study of the themes, structure and style of Chekhov's major short stories and plays. The course will also explore the significance of Chekhov's prose and drama in the English-speaking world, where this masterful Russian writer is the most staged playwright after Shakespeare. All readings and lectures in English.

B277 NABOKOV IN TRANSLATION
A study of Vladimir Nabokov's writings in various genres, focusing on his fiction and autobiographical works. The continuity between Nabokov's Russian and English works is considered in the context of the Russian and Western literary traditions. All readings and lectures in English.

B309 RUSSIAN LANGUAGE AND CULTURE THROUGH INTERACTIVE LEARNING
A course in which Russian students of English and Tri-Co students of Russian learn from each other through guided discussions on topics chosen by the instructor. Tri-Co students are required to attend weekly meetings with the instructor.

B321 THE SERIOUS PLAY OF PUSHKIN AND GOGOL
T. Harte
This course explores major contributions to the modern Russian literary tradition by its two founding fathers, Aleksander Pushkin and Nikolai Gogol. Comparing short stories, plays, novels, and letters written by these pioneering artists, the course addresses Pushkin's and Gogol's shared concerns about human freedom, individual will, social injustice, and artistic autonomy, which each author expressed through his own distinctive filter of humor and playfulness. The course is taught jointly with Russian 221; students enrolled in 321 will meet with the instructor for an additional hour to study texts in the original Russian.

B375 LANGUAGE AND IDENTITY POLITICS OF LANGUAGE IN EUROPE AND EURASIA
A brief general introduction to the study of language policy and planning with special emphasis on the Russophone world, the newly independent states of the former Soviet Union. Surveys current theoretical approaches to bilingualism and language shift. Analyzes Soviet language and nationality policy using published census data for the Soviet period through 1989. Focus on the current "language situation" and policy challenges for the renewal of functioning native languages and cultures and maintenance of essential language competencies, lingua franca, both within the Russian Federation and in the "Near Abroad."

B380 SEMINAR IN RUSSIAN STUDIES
D. Davidson, I. Walsh
An examination of a focused topic in Russian literature such as a particular author, genre, theme, or decade. Introduces students to close reading and detailed critical analysis of Russian literature in the original language. Readings in Russian. Some discussions and lectures in Russian. Prerequisites: RUSS 201 and one 200-level Russian literature course.

B390 RUSSIAN FOR PRE-PROFESSIONALS I
M. Rojavin
This capstone to the overall language course sequence is designed to develop linguistic and cultural proficiency in Russian to the advanced level or higher, preparing students to carry out academic study or research in Russian in a professional field. Suggested Preparation: study abroad in Russia for at least one summer, preferably one semester; and/or certified proficiency levels of "advanced-low" or "advanced-mid" in two skills, one of which must be oral proficiency.

B391 RUSSIAN FOR PRE-PROFESSIONALS II
M. Rojavin
Second part of year long capstone language sequence designed to develop linguistic and cultural proficiency to the "advanced level," preparing students to carry out advanced academic study or research in Russian in a professional field. Prerequisite: RUSS 390 or equivalent.

B398 SENIOR ESSAY
Independent research project designed and conducted under the supervision of a departmental faculty member. May be undertaken in either fall or spring semester of senior year.

B399 SENIOR CONFERENCE
Exploration of an interdisciplinary topic in Russian culture. Topic varies from year to year. Requirements may include short papers, oral presentations, and examinations.

B403 SUPERVISED WORK

B701 SUPERVISED WORK
D. Davidson

SOCIOLOGY

haverford.edu/sociology

The Sociology department helps students learn how to "do sociology" by exposing them to exemplars of what sociology has been and by asking them to study micro and macro aspects of the "social world." We believe that there are a variety of legitimate ways to "do sociology," and we do not seek to privilege any one of them. Our individual courses construct arguments for students to consider, develop, and argue against, and they provide the analytical and methodological training students need to formulate theoretical arguments and to evaluate those arguments empirically. We want an active engagement from our students as they find their own points-of-view within the discipline, and we expect a theoretical and methodological rigor and sophistication within the approaches they study and adopt.

The department is small, but we view this as a strength. It allows students to work with a small number of people in depth and to develop a textured way of approaching the social world. Our goals are to facilitate the emergence of each student's own arguments and help students to:
• formulate their own theoretical contentions and develop their own intellectual agenda
• develop an Archimedian point from which to survey the social world
• approach new, unfamiliar problems (both academic and social) with helpful ideas about their resolution.

Our graduates go on to a wide variety of careers. The analytic, statistical, and methodological skills acquired over the course of studies in sociology are an asset in sectors as different as government, service, education, and business. Our department has an excellent record of placing students in the top graduate programs in sociology.

CURRICULUM

SOCIOLOGY MAJOR REQUIREMENTS

A total of at least eleven courses, including:
• SOCL 155a and 155b (two semesters of Foundations in Social Theory)
• SOCL 215a, ECON 203, or the equivalent (quantitative methods, statistics)
• SOCL 450a and 450b (senior thesis)
• six additional courses in sociology.
Students should consult their advisor about the possibility of receiving major credit for sociology courses taken at other campuses, including (but not limited to) Bryn Mawr, Swarthmore and the University of Pennsylvania. Normally, the department will grant such credit if the courses enhance the integrity of a program grounded in the Haverford curriculum.

SOCIOLOGY MINOR REQUIREMENTS

A total of at least six courses, including:
• SOCL 155a and 155b (Foundations in Social Theory)
• SOCL 215a (Quantitative Methods, or the equivalent)
• at least three 200 and/or 300 level courses in the department.
Students may take no more than four courses with a single professor.

SENIOR THESIS

The major in Sociology culminates in a year-long senior thesis. When you enroll in one of our courses, you buy into the framework that we have defined. This is the case even if you disagree and argue against that framework and the arguments we make within it. In your senior thesis, we buy into your framework. You undertake a piece of independent research that we view as a "masterwork," the completion of your apprenticeship. Our task is to facilitate the work you want to accomplish. In addition to meeting with your primary advisor, either individually or as a group, we also meet several times a semester as a department, with the entire faculty and all of our senior majors. These meetings give students the opportunity to make more formal presentations of their work, beginning with a problem formulation and culminating with a presentation of their completed theses.

RESEARCH AND OTHER OPPORTUNITIES

There are plenty of resources on campus to fund student research projects, reading seminars, and other initiatives. Our majors receive support from both the Center for Peace and Global Citizenship and the John B. Hurford '60 Center for the Arts and Humanities (haverford.edu/HCAH). The Eastern Sociological Society invites undergraduates to present their work at their annual meeting. We especially encourage seniors to present their thesis work in progress to get feedback, as well as meet people they might want to work with in graduate school.

Haverford is fortunate to be the location of the William Pyle Philips Fund, which enables the Sociology department to bring distinguished scholars and statespersons to our campus. During their visit, guests typically deliver a public lecture and lead a work-in-progress seminar where students and faculty have a chance to discuss their current work. They also participate in discussions with students both in classes and informally.

FACULTY

Mark Gould
Chair and Professor

Lisa McCormick
Assistant Professor

Anat Yom-Tov
Assistant Professor

COURSES

150A SOCIOLOGY OF IMMIGRATION

Matthew McKeever
This course is an introduction to the social, economic, and political aspects of current immigration to the United States. The course begins with an overview of the history of immigration over the past 100 years, and how contemporary immigration differs from earlier eras. The course then explores the major issues of current immigration research in sociology, including demographic change, economic inequality, and assimilation.

155A FOUNDATIONS IN SOCIAL THEORY

Liping Wang
The first part of a two-course sequence introducing students to sociology through its theoretical traditions. 155a focuses on the major works of the sociologists of modernity (Marx, Durkheim, and Weber) and how they inform the discipline today. For students who plan to take both courses, we recommended that they take 155a before 155b.

155B FOUNDATIONS IN SOCIAL THEORY

Liping Wang, Lisa McCormick
An examination of classical and Marxian sociological theory as an exemplification of how we might do sociology today. Students may take either semester for credit, but majors must take both semesters. 155a focuses on social structure, emphasizing the work of Marx and Weber. 155b deals primarily with the interrelationships between social structure, personality and culture, focusing on the work of Durkheim, Freud, Mead, and Piaget. There is some variation between different sections of the course.

215 QUANTITATIVE METHODS

Matthew McKeever
An introduction to the use of statistics in sociological research. Students are required to write a research proposal.

234 CONTEMPORARY CHINA

Liping Wang
This course presents a general overview of the major economic, political and cultural transformation of China in the past several decades. The course has a strong interdisciplinary focus and extensively incorporates literature in sociology, history, and anthropology.

240 NATIONALISM

Liping Wang

This course introduces the major theories on nationalism and ethnic identity. It also leads students to develop a comparative interest in studying ethnic problems in a contextualized and historical manner.

244 SELF AND SOCIETY

Lisa McCormick

An examination of the historical, cultural, embodied, and interactional contexts in which selfhood is defined, experienced, and enacted. Particular emphasis is on the perspectives of symbolic interactionism, social constructionism, and ethnomethodology to analyze the processes and settings in which selfhood is constituted, disrupted, and transformed. Covers core concepts tested in section three of the MCAT2015.

257 SOCIOLOGY OF THE ARTS

Lisa McCormick

An introduction to sociological perspectives on the arts. Topics include the relationship between art and social structure, the social sources of aesthetic meaning, the social consequences of artistic classifications and representations, the use of art to construct and undermine social boundaries, the social relations of creating, producing, evaluating, and consuming art, the functions of art in everyday life, and the potential for art to promote social change.

270 MEASURING EDUCATION

Matthew McKeever

This course explores contemporary political movements to measure learning outcomes in educational institutions. It covers such topics as NCLB legislation, standardized testing for college admissions, assessment of college education, and development of online learning tools.

352 DEVELEOPMENT AND SOCIAL CHANGE

Liping Wang

This course presents a general overview of macro-level social changes. It mainly focuses on the themes of capitalism and economic growth, developmental state and its different successes, revolution and democracy, welfare state and social regulation.

450 SENIOR DEPARTMENTAL STUDIES

Lisa McCormick

Thesis work, two semesters required of majors in their senior year.

480 INDEPENDENT STUDY

Lisa McCormick

Research papers and reading courses on special topics related to the individual interests of advanced students

SPANISH

haverford.edu/spanish

The department of Spanish (haverford.edu/spanish) aims to give students a thorough knowledge of the Spanish language and the ability to understand and interpret Spanish, Latin American, and Latino texts and cultures. To accomplish these general goals, the department offers a broad range of courses:

- **Elementary and Intermediate language courses** (SPAN 001–002, 100, 101, and 102) introduce and develop the basics of the language and emphasize the active use of Spanish for communication and understanding of the cultures that use it.
  - o Language courses in the department require attendance to all classroom sessions and all tutorials, which provide crucial complementary activities and are part of the student's final grade.
  - o Placement test results are mandatory; we expect all students to enroll in Spanish department courses at the level of placement the department determines at the beginning of every academic year. On occasion, we will consider requests by individual students to move to a higher or lower placement level, after close and detailed consultation with the student's advisor, the course instructor, and the department chair.

- **Literature, film, culture and civilization, and linguistics courses** (at the 200 level) introduce significant themes and authors, while further developing Spanish language skills in reading, writing, speaking, and oral comprehension.

- **Advanced courses** (at the 300 level) explore in greater depth a specific line of inquiry; a literary, cultural, or historical issue; or a theme in Spanish and Spanish American writing and thought.

- **Courses in English**, with readings in English or English translation, which aim to bring to a wider audience and across disciplinary boundaries important themes, issues, and accomplishments of the Spanish-speaking world. Examples include SPAN 240 (Latin American and Iberian Cultures), SPAN/COML 250 (Quixotic Narratives), and SPAN 266 (Iberian Orientalism and the Nation).

CURRICULUM

MAJOR REQUIREMENTS

- Six courses in Spanish and Spanish American literature or film
  - o Of the six required courses, three should be at the 200 level and three at the 300 level (two of these 300 level courses must be taken at Haverford or Bryn Mawr).
  - o Students who qualify by pre-college training or study abroad may substitute 300 level courses for the 200 level offerings.
  - o The program must include at least two courses at the 200 or 300 level that focus substantially on texts prior to 1898.

- The senior seminar, SPAN 490 (two semesters), in which students write a senior essay.

MINOR REQUIREMENTS

- Six courses at the 200 or 300 level. One of the six courses should focus substantially on texts prior to 1898.

- A minimum of one course at the 300 level taken at Haverford or Bryn Mawr.

Students may not count Bryn Mawr courses SPAN B200 (Temas culturales) and SPAN B202 (Introducción al análisis literario, formally cited at the 100 level) toward major or minor requirements.

LATIN AMERICAN, IBERIAN, AND LATINO STUDIES CONCENTRATION

For a comprehensive study of the cultures of Latin America and Spain, students can supplement a major in one of the cooperating departments (History, History of Art, Religion, Economics, Political Science, Sociology, Anthropology, and Spanish) with coursework specifically related to Latin America or Spain. The Department of Spanish supervises the Latin American and Iberian Studies Concentration. A

student is admitted at the end of the sophomore year, after submitting a plan of study worked out with his or her major department and meeting the requirements of the concentration.

CONCENTRATION REQUIREMENTS

- Competence in Spanish to be achieved no later than the junior year, demonstrated by the completion of at least one course in Spanish at the 200 level or above.
- Spanish 240 (Latin American and Iberian Cultures at Haverford) or General Studies 240 at Bryn Mawr.
- Four other related courses.
  - o Students must take two concentration-related courses outside their major department.
  - o One of these four courses should be at the 300 level.
  - o Students should consult with their advisors as to which courses are most appropriate for their major and special interests: Some apply more to Latin America, others to Spain, others to U.S. Latinos. Students may use other courses to fulfill this requirement if the student can demonstrate their pertinence to the student's program.
- A paper (at least 20 pages) on Spain, Latin America or U.S. Latino culture.
  - o Students must complete the paper no later than the first semester of the senior year, as part of the work for a course in the student's major or the concentration.
  - o Whenever possible, the student must write the paper while in residence at the College.
  - o The student must submit in advance a proposal for the paper topic, accompanied by a bibliography, for approval by the concentration coordinator. While the options for the topic are open and should reflect the student's interests in a particular discipline, the paper should demonstrate the student's ability to discuss intelligently the history, literature, or social or political thought of Latin America or Spain as it applies to their individual research project.

FIVE-YEAR COOPERATIVE DEGREE PROGRAM

Haverford joins other distinguished colleges and universities in an agreement with the Center for Latin American Studies at Georgetown University to participate in a five-year joint degree program. The cooperative agreement allows undergraduate concentrators in Latin American and Iberian Studies to pursue an accelerated course of study in a graduate degree. The program offers the highest qualified applicants the opportunity to count four courses from their undergraduate study toward the M.A. program in Latin American Studies at Georgetown University, enabling them to complete the degree in two semesters and one summer.

The five-year B.A.-M.A. program is designed for those students who demonstrate excellence at the undergraduate level. Qualified undergraduates must:

- maintain a minimum GPA of 3.5
- declare an interest in the Cooperative degree program during their junior year
- participate in the Center's summer study abroad program.

During the senior year, candidates apply through the normal Georgetown M.A. application cycle. Students must complete all M.A. prerequisites during their undergraduate education and must have concentrated in Latin American Studies at the undergraduate level.

REQUIREMENTS FOR HONORS

The department invites students it considers qualified to become candidates for honors during the second semester of their senior year. The department expects honors candidates to do superior work in upper-level literature and culture courses (with a 3.7 average). The department awards honors and high honors on the basis of the quality of the senior thesis.

FACULTY

Roberto Castillo Sandoval
Chair and Associate Professor of Spanish and Comparative Literature

Israel Burshatin
Barbara Riley Levin Professor of Comparative Literature and Professor of Spanish

Aurelia Gómez Unamuno
Assistant Professor

Ana López-Sánchez
Assistant Professor

Graciela Michelotti
Associate Professor

COURSES

001 ELEMENTARY SPANISH

Ariana Huberman

Development of basic phonetic and structural skills. Greatest emphasis is placed on spoken Spanish, with grammar and written exercises, to develop oral proficiency. The course meets for five hours a week: three hours (3) with the instructor and two (2) hours in mandatory tutorial sections. This is a two-semester course. Both semesters are needed to receive credit. Students must register in the same section in the Spring semester even if the instructor changes. This section and 002B01 reserved for those who have not had Spanish before.

002 ELEMENTARY SPANISH

Ariana Huberman

Development of basic phonetic and structural skills. Greatest emphasis is placed on spoken Spanish, with grammar and written exercises, to develop oral proficiency. The course meets for five hours a week: three hours (3) with the instructor and two (2) hours in mandatory tutorial sections. This is a two-semester course. Both semesters are needed to receive credit.

100A BASIC INTERMEDIATE SPANISH

Ariana Huberman

A course for students who have achieved a basic knowledge of Spanish but have limited experience and/or confidence communicating in the language. Students improve their conversational and writing skills while learning about the "realities" of Spanish-speaking countries.The course meets for five hours a week: three hours (3) with the instructor and two (2) hours in mandatory tutorial sections.

101 INTERMEDIATE SPANISH

Ana Lopez-Sanchez, Israel Burshatin, Aurelia Gomez Unamuno

Review of conversational skills and grammar and development of writing abilities. Literature readings are combined with materials from magazines, newspapers, and films from Spain and Spanish America. The course meets for five hours a week: three hours (3) with the instructor and two (2) hours in mandatory tutorial sections.

102 ADVANCED INTERMEDIATE SPANISH

Roberto Castillo Sandoval, Graciela Michelotti

Refinement of writing and communicative skills. Readings are drawn from a variety of literary genres. Students are expected to involve themselves with Hispanic culture in order to improve and test their ability to use Spanish. The course meets for five hours a week: three hours (3) with the instructor and two (2) hours in mandatory tutorial sections.

201 EXPLORING CRITICAL ISSUES THROUGH WRITING

Ana Lopez-Sanchez

The course aims to provide students with the skills necessary to successfully undertake writing assignments in the upper-division Spanish courses. Students engage in discussions of and write about topics such as identity, borders and migrations, and manifestations of violence.

205 STUDIES IN THE SPANISH AMERICAN NOVEL

Graciela Michelotti

This course examines issues of memory and identity in the context of personal and national stories/histories. The course analyzes recently published novels, and short stories (including some film adaptations) by representative writers from the region.

210 SPANISH AND SPANISH AMERICAN FILM STUDIES

Graciela Michelotti

Exploration of films in Spanish from both sides of the Atlantic. The course discusses approximately one movie per class, from a variety of classic and more recent directors such as Luis Buñuel, Carlos Saura, Pedro Almodóvar, Lucrecia Martel among others. The class focuses on the cinematic discourse as well as the cultural and historic background of each film. The course also provides advanced language training, with particular emphasis in refining oral and writing skills.

221 NARRATING MODERN MEXICO

Aurelia Gomez Unamuno

This course approaches the reconstruction of the nation after the Mexican Revolution and its relevance in foundational narratives. Through literary texts and visual production including the Mexican Muralism, photography and films, this

course analyses the Mexican Revolution and the post-revolutionary process stressing the tensions, contradictions, and debts of the Mexican Revolution to rural sectors including campesino and indigenous groups.

222 RETHINKING LATIN AMERICA IN CONTEMPORARY NARRATIVE

Aurelia Gomez Unamuno

This course explores literary texts and films produced after the '80s. These texts address political issues including memory, gender, violence, and border, and destabilize foundational identities and mythic representations found in the Latin American Boom narrative.

240 LATIN AMERICAN AND IBERIAN CULTURE AND CIVILIZATION

Ariana Huberman

An interdisciplinary exploration of Latin America and Spain. Topics include imperial expansion, colonialism, independence, national and cultural identities, and revolution. This course serves as the introduction to the Concentration in Latin American and Iberian Studies.

248 POETRY AND POLITICS IN SPAIN

Israel Burshatin

266 IBERIAN ORIENTALISM AND THE NATION

Israel Burshatin

This course examines cultural production in the frontier cultures of medieval Iberia and the patterns of collaboration and violence among Islamic, Christian, and Jewish communities. Other topics include Christian "reconquest" and the construction of Spanishness as race and nation; foreign depictions of Spain as Europe's exotic other; internal colonialism and Morisco resistance; contemporary African migrations. Conducted in English.

312 INQUIRING MINDS: INQUISITION, WRITING, AND THE EARLY MODERN SUBJECT

Israel Burshatin

321 MEXICAN NARRATIVES

Aurelia Gomez Unamuno

322 POLITICS OF MEMORY IN LATIN AMERICA

Aurelia Gomez Unamuno

This course explores the issue of memory, the narration of political violence and the tension between truth and fiction. A selection of documents, visual archives and documentary films are compared with literary genres including testimonies memories, diaries, poetry, and fiction writing. This course also compares the coup and dictatorship of Pinochet, with the repression of the student movement of 68, and the guerrilla warfare in Mexico.

343 THE LATIN AMERICAN CITY AND ITS NARRATIVES

Graciela Michelotti

An exploration of how literary and visual arts texts have imagined the Latin American metropolitan space. Students reflect on the representation of urban communities in Latin American cities such as Buenos Aires, Mexico, and Havana among others.

397 THE FICTIONS OF ROBERTO BOLAÑO AND THE RENEWAL OF THE LATIN AMERICAN NOVEL

Roberto Castillo Sandoval

This course explores the transformations in Latin American fiction in the late 20th and early 21st centuries, through an extensive examination of the works (essays, poetry, short fiction and novels) by late Chilean author Roberto Bolaño (1953–2003).

490 SENIOR DEPARTMENTAL STUDIES

Graciela Michelotti

The course consists of two one-semester parts. The first, in the Fall semester, is a seminar under the supervision of one Spanish department faculty member. This seminar prepares students for the research and writing their senior theses by: 1) enhancing and refining the reading tools and critical approaches to texts in Spanish acquired in previous courses; 2) elucidating and contextualizing relevant aspects of literary history, theory, and culture; 3) determining the thesis topic, key secondary sources and approach to be deployed in writing the thesis; and 4) polishing the skills and methods for successful research and proper use of available resources. Problems in literary and cultural analysis—selected with a view to their pertinence in relation to the group's interests—are presented through close readings of works from various periods and genres and through selected works of criticism or theory. The second semester involves the process of writing the thesis. Seminar meetings continue—albeit in a more sporadic schedule—for progress reports while students work under the supervision of individual professors.

WRITING PROGRAM

haverford.edu/writing-program

As a vital part of academic study, personal expression, and civic life, writing merits concerted attention in a liberal arts education. The Writing Program, affiliated with the College Writing Center, encourages students to become rigorous thinkers and writers who can construct arguments that matter, craft prose that resonates with their intended audience, and understand how inextricable writing is from learning.

The Writing Program administers the first-year writing seminars, which all first-year students take. Taught by faculty from across the College, the first-year writing seminars explore a particular theme or field of study while emphasizing writing as a means of inquiry, analysis, and persuasion. Different seminars extend intellectual inquiry into:

- visual studies
- the interrogation of the literary canon
- Quaker history and ethics; categories of difference (racial, sexual, religious, and national identity)
- medical humanities
- engaged social practice.

The intensive writing seminars (WSI) prepare students who need extra exposure to academic writing.

Seminar topics reflect the range of expertise of the faculty, and small classes encourage close student-faculty interaction. In each course, participants analyze readings, engage in discussion, and work on all aspects of academic writing, frequently in small tutorial groups, from constructing thoughtful arguments to crafting an effective prose style. Students can expect to write frequent, short essays as well as other kinds of informal writing assignments during the semester.

Creative Writing courses are listed under the English Department (see page 127).

FACULTY

Debora Sherman
Director of College Writing and Assistant Professor of English

Kristin Lindgren
Director of the Writing Center

Paul Farber
Visiting Assistant Professor of Writing, Writing Fellow

Ashley Foster
Visiting Assistant Professor of Writing, Writing Fellow

Barbara Hall
Specialist in Multilingual and Developmental Writing, Visiting Lecturer in Writing

John Hyland
Visiting Assistant Professor of Writing, Writing Fellow

COURSES FOR 2014-15

101 FINDING A VOICE

Nimisha Ladva

104 AMERICAN DREAMS: ETHNOGRAPHIC PERSPECTIVES ON THE U.S.

Barbara J. Hall

A first-semester course with individual tutorials that prepares students for a second-semester topical or discipline-based writing seminar. While most people would agree that the United States is a diverse country in many ways, this course asks the question: What does American diversity really mean? In particular, what does it mean to be an American when the United States includes people of so many different ethnic, racial, religious, and socioeconomic groups, such varying lifestyles, and such divergent political opinions? What, we ask, are some of the different ways to be American, and what, if anything, do they have in common? What separates and

unifies a nation with so many different kinds of American dreams? This course offers students opportunities to explore various ways of being American through an ethnographic exploration of various American sub-cultural groups. While this course focuses primarily on helping students to master various aspects of academic writing at the college level, we also contextualize our ethnographic reading by learning about ethnographic research methods and have the opportunity use these methods as well.

109 PERSPECTIVES ON IMMIGRATION AND EDUCATION

Barbara J. Hall

The primary goal of this course is to challenge students as academic readers, writers and thinkers while providing support for continuous growth. We immerse ourselves in the historical, social, cultural, political, linguistic, and various other contexts of immigration to the United States, with a focus on salient issues relating to K–12 public education. What kinds of experiences, we ask, have immigrant students had in American schools in the past century? Have schools served this population well? How are schooling and citizenship related? Does public education facilitate or hinder immigrant students in attaining the American dream of success and fortune? How do various kinds of educational practice (like bilingual education, English as a Second Language instruction, and contemporary multicultural education) marginalize or empower immigrant students? Readings for the course include a wide variety of perspectives on these issues, and to that end include academic articles, ethnographic texts, autobiographical writing, and fiction.

110 MEDICAL NARRATIVES

Sue Benston

In "To Build A Case," Rita Charon asserts a polarity between the patient's oral tale and the doctor's written case history: "They are opposing entities. They are examples of language being used in fundamentally different ways. Their goals conflict." We test this pronouncement as we read across a spectrum of fiction and nonfiction texts. How does medical language illuminate, and how does it obfuscate, the patient's individual experience? Do the doctor's practices of "history-taking" and "case reporting" wrest narrative control from the patient-and, if so, what are the benefits and costs of a usurping authority? Can we detect the patient's subjective dilemmas finding expression in the doctor's own struggle for solutions? This course will attempt to place the two supposed narrative opponents into a larger context: a rich assortment of medical story-tellers. What types of medical narrative exist outside the consulting room and the "chart," and do they effectively reconcile the alleged conflict between patient- and physician-narrator? We look at illness through a variety of lenses, taking our readings not only from standard case reports but from patient memoirs, physician memoirs, medical journalism, essays in philosophy of mind, and (last but hardly least!) literary fiction. We seek to understand the efficacy of each genre (even, one might say, its therapeutic implications) while training a clear eye on its inevitable evasions and oversights.

122 WRITING IN PUBLIC HEALTH

Judith Anne Owen

128 SACRED TEXTS

Kenneth A. Koltun-Fromm

An introduction to reading sacred texts in an academic setting. In this course we apply a variety of methodological approaches—literary, historical, sociological, anthropological or philosophical—to the reading of religious texts, documents and materials.

141 THE FUTURE OF THE BOOK IN THE DIGITAL AGE

Jeremiah Mercurio

Jeff Jarvis bluntly declared in 2005: "Print is where words go to die," asserting that the dynamism and hypertextuality of digital media render books and other print formats obsolete. On the other hand, John Updike and Nicholson Baker argue that print crucially safeguards the individuality of the author's voice and the survival of the text. This seminar will engage the debate by exploring what the book represents today, both as a means of communication and as a physical artifact, while seeking to envision the future of books and e-books from the perspective of its readers, authors, publishers, printers, illustrators, and conservators. We start by placing the current digital revolution against the backdrop of revolutions and evolutions in the methods of textual transmission from ancient papyri to the printing press to early experiments in print hypertextuality. With this new

appreciation of prior upheavals, we ask whether the print-versus-digital debate represents a false dichotomy, or whether the shift to digital media signals a fundamental transformation in how society organizes and transmits information. To find our answers, we explore several fascinating textual experiments that illustrate the limitations and possibilities of physical and digital books in texts that may include Lynd Ward's novel in woodcuts *God's Man*, Frans Masereel's novel in woodcuts *Mon Livre d'Heures*, Italo Calvino's recursive novel *On a Winter's Night a Traveler*, Kate Pullinger and Chris Joseph's interactive digital narrative *Inanimate Alice*, Vladimir Nabokov's re-arrangeable narrative *The Original of Laura*, Amaranth Borsuk and Brad Bouse's hologramatic work of poetry *Between Page and Screen*, and Chris Ware's multi-format graphic novel *Building Stories*.

150 INTRODUCTION TO LITERARY ANALYSIS
Laura McGrane, Jaclyn Pryor, Barbara Riebling, Christina Zwarg, Asali Solomon
Intended like other sections of the Writing Program, to advance students' critical reading and analytical writing skills, this course introduces students to the discipline that studies the literary traditions of the English language. It aims to explore the broad range of thematic interests inherent in these traditions, sharing as they do common roots in the history of our language and its influences. Among the themes to be tracked through various strategies of literary representation and interpretation in a variety of genres (epic, narrative, and poetry) and modes (realism, allegory, and romance), and across a range of historical periods are: the powers and limits of language; ideas of character and community, and the relation between person and place; heroic endeavor and the mystery of evil; and loss and renovation. Our goal is to develop the vocabulary, skills, and knowledge necessary to understand not only how we decide what literary texts mean, but also how literary texts generate and contemplate meaning.

155 DRAWING THE LINE: AUTOBIOGRAPHY AS GRAPHIC NARRATIVE
Theresa M. Tensuan

156 GOOD GUYS AND GALS? QUAKER IMAGERY IN FICTION
Emma Lapsansky

159 MEMORY, MONUMENTS, AND URBAN SPACE
Paul Farber
In this writing course, we explore literary, cultural, and architectural approaches to urban historical memory. We look to officially sanctioned monuments as well as countercultural expressions of memory to study the cultural life of cities. We focus primarily on the period between 1968 and the present, considering the roles of race, gender, sexuality, and class in debates about cultural memory in such ongoing matters of historical reflection as: the assassination of Martin Luther King, the Vietnam War, the War on Drugs, the MOVE bombing, the AIDS epidemic, and 9/11. In addition to regular writing assignments, we take several field trips to sites of memory in Philadelphia, with the city serving as one of our primary sources for this course.

160 BORDERS, WALLS, AND BRIDGES: DIVIDED CITIES
Paul Farber
This writing course approaches the topic of divided cities through a range of interdisciplinary cultural approaches and comparative 20th- and 21st-century case studies. Our course readings include selections from such works as Carl Nightengale's *Segregation: A World History of Divided Cities*, Teresa Caldeira's *City of Walls*, Ruth Gilmore's Golden Gulag, Michael Katz's *Why Don't American Cities Burn*, and Peter Schneider's *Wall Jumper*. In addition to regular writing assignments, our class takes several class field trips to sites in Philadelphia, with the city serving as one of our primary sources for this course.

162 IMMIGRATION AND REPRESENTATION

163 PARIS AND POETRY
J. Ashley Foster

164 PEACE TESTIMONIES

165 CONTEMPORARY NARRATIVES OF AMERICAN VIOLENCE

166 TUNING IN: AUDIO CULTURE
John Hyland

167 GLOBALIZATION IN THE 21ST CENTURY
Barbara Lynn Hall

168 MADNESS AND WINE IN CLASSICAL LITERATURE

FACULTY

haverford.edu/faculty

PRESIDENT AND PROVOST

Daniel H. Weiss, *President and Professor of Independent College Programs*
B.A., The George Washington University, M.A., Johns Hopkins University, M.B.A., Yale School of Management, Ph.D., Johns Hopkins University

Kimberly W. Benston, *Interim Provost and Francis B. Gummere Professor of English*
B.A., M.A., M.Phil., and Ph.D., Yale University

EMERITI

Thomas A. Benham, *Professor of Engineering, Emeritus*
B.S. and M.S., Haverford College

R. Christopher Cairns, *Professor of Fine Arts, Emeritus*
B.A., Oberlin College; M.F.A., Tulane University

John R. Cary, *Professor of German, Emeritus*
B.A., Haverford College; Ph.D., The Johns Hopkins University

Douglas A. Davis, *Professor of Psychology, Emeritus*
B.A., University of Minnesota; Ph.D., University of Michigan

Ramón García-Castro, *Associate Professor of Spanish, Emeritus*
B.E., University of Chile; M.A., Harvard University; Ph.D., University of Pennsylvania

Daniel J. Gillis, *Professor of Classics, Emeritus*
B.A., Harvard College; M.A. and Ph.D., Cornell University

Harvey Glickman, *Professor of Political Science, Emeritus*
B.A., Princeton University; M.A. and Ph.D., Harvard University

Jerry P. Gollub, *John and Barbara Bush Professor in the Natural Sciences*
B.A., Oberlin College; M.A. and Ph.D., Harvard University

Marcel M. Gutwirth, *John Whitehead Professor of French, Emeritus*
B.A., Columbia College; M.A. and Ph.D., Columbia University

Douglas H. Heath, *Professor of Psychology, Emeritus*
B.A., Amherst College; M.A. and Ph.D., Harvard University

William F. Hohenstein, *Associate Professor of Sociology, Emeritus*
B.A., Maryknoll Seminary; M.A. and Ph.D., University of Pennsylvania

Dale H. Husemoller, *Professor of Mathematics, Emeritus*
B.A., University of Minnesota; M.A. and Ph.D., Harvard University

Joanne Hutchinson, *Professor of English, Emeritus*
B.A., M.A., and Ph.D. Temple University

Paul C. Jefferson, *Associate Professor of History, Emeritus*
B.A., Harvard College; Ph.D., Harvard University

L. Aryeh Kosman, *John Whitehead Professor of Philosophy, Emeritus*
B.A. and M.A., University of California, Berkeley; Ph.D., Harvard University

Emma Lapsansky-Werner, *Professor of History and Curator of the Quaker Collection, Emeritus*
B.A., M.A., and Ph.D., University of Pennsylvania

Richard Luman, *Professor of Religion, Emeritus*
B.A., M.A., and Ph.D., University of Iowa

Wyatt MacGaffey, *John R. Coleman Professor of Social Sciences, Emeritus*
B.A. and M.A., Cambridge University; Ph.D., University of California, Los Angeles

Colin F. MacKay, *John Farnum Professor of Chemistry, Emeritus*
B.S., University of Notre Dame; M.S. and Ph.D., University of Chicago

Robert A. Mortimer, *Professor of Political Science, Emeritus*
B.A., Wesleyan University; M.A. and Ph.D., Columbia University

Terry Lynn Newirth, *Professor of Chemistry, Emeritus*
A.B., Bryn Mawr College; Ph.D., Massachusetts Institute of Technology

R. Bruce Partridge, *Research Professor of Natural Sciences, Emeritus*
B.A., Princeton University; D.Phil., Oxford University

Sidney I. Perloe, *Professor of Psychology, Emeritus*
B.A., New York University; Ph.D., University of Michigan

James C. Ransom, *Associate Professor of English, Emeritus*
B.A., University of New Mexico; M.A. and Ph.D., Yale University

Joseph A. Russo, *Audrey A. and John L. Dusseau Professor in the Humanities, Emeritus*
B.A., Brooklyn College; M.A. and Ph.D., Yale University

Melvin Santer, *Professor of Biology, Emeritus*
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SENIOR STAFF

haverford.edu/president/governance/senior_staff.php

The Senior Staff comprises the leadership of each of the College's organizational divisions. As a group, it oversees the administrative policies of the College and serves as the president's cabinet. The Senior Staff supports the president in setting strategic direction for the College, prioritizing and implementing administrative initiatives, and administering the annual operating budget.

Daniel H. Weiss
President

A leading advocate for the liberal arts and the residential liberal arts college, Dr. Weiss served from 2005 to 2013 as president of Lafayette College, where his tenure was noted for a strategic plan that led to an increase in the size of its permanent faculty, revision of its Common Course of Study and the development of new interdisciplinary programs across the curriculum. Previously, Dr. Weiss was a professor of art history at Johns Hopkins University, where he went on to serve as Dean of the Zanvyl Krieger School of Arts and Sciences. He earned both an M.A. and Ph.D in the History of Art from Hopkins as well as an M.B.A. from the Yale School of Management.

Kim Benston
Provost and Francis B. Gummere Professor of English

The Provost is the chief academic officer of the College, with oversight of the Faculty, the curriculum, general education, faculty research, the three Academic Centers, the Library, and all other academic and instructional support services. Kim came to Haverford from a teaching post at Yale in 1984. His scholarly interests range from Shakespeare to African-American literature to critical animal studies. Kim was Director of the Hurford Center for Arts and Humanities at Haverford from 2002-2005 and 2007-2009.

Mike Casel
Chief Investment Officer

The Chief Investment Officer has specific oversight of the College's endowment in collaboration with the Investment Committee of the Board of Managers. Prior to arriving at the College in 2007, Mike held several senior investment management positions, and has over 18 years of experience in the investment industry. He holds the Chartered Financial Analyst and Chartered Alternative Investments Analyst designations and was named a Rising Star of Endowments and Foundations in 2009. He is also Chair of the Investment Committee at American Friends Service Committee in Philadelphia.

Martha Denney
Dean of the College

The Dean of the College is the chief student affairs officer and works to support the College's academic goals and the co-curricular life that undergirds them. Because of its unusual history as both an academic and student affairs office, the Dean of the College's office embraces three sets of responsibilities: academic advising; provision of academic policies and programs; and co-curricular and student affairs, including Athletics, Residential Life, Career Development, Health Services, and Counseling & Psychological Services. Martha served as Assistant Dean of Students for International Affairs, Director of Off-Campus Study and Academic Affairs, and Associate Dean of the Faculty at Colby College. Before coming to Haverford in 2009, she was at Georgetown University, where she was Associate Dean and Director of the Undergraduate Program at the Edmund A. Walsh School of Foreign Services.

Ann West Figueredo '84
Vice President for Institutional Advancement

The Vice President for Institutional Advancement, working closely with the President, the Board of Managers, the Corporation, and other key volunteers, oversees Alumni Relations, Development, and Advancement Services at Haverford. There is a dotted line reporting relationship with College Communications. Prior to coming to Haverford in 2008, Ann had a 20+ year career in senior roles in Fortune 500 companies and not for profit Board leadership. Ann graduated from Haverford College Class of 1984 and earned her MBA from Columbia School of Business in 1989.

Jess Lord
Dean of Admission and Financial Aid

The Dean of Admission and Financial Aid oversees all aspects of student admission and aid, including recruitment, application review, and enrollment. The Dean is also responsible for working with senior leadership and constituencies on the evaluation and development of admission and aid policies. Before arriving at Haverford in 2005, Jess worked in admission at Pomona College and Brown University. Jess is also a member of the Haverford Corporation and the Advisory Committee of the Corporation.

Jesse Lytle
Chief of Staff and Secretary to the Board of Managers

The Chief of Staff represents the President and the College on wide ranging business and is the administrative lead in the Office of the President. The Chief of Staff plays a lead role in institutional planning and serves as Secretary of the Board Managers and Assistant Secretary of the Corporation, as well as Chief Sustainability Officer. Before coming to Haverford in 2012, Jesse held administrative, research, and teaching roles at Amherst College, the University of Pennsylvania, and Mount Holyoke College.

Chris Mills '82
Assistant Vice President for College Communications

College Communications manages internal and external messaging and communications. Internal clients include all departments with the exception of Athletics; platforms include the main and academic websites and printed material, from catalogs and brochures to posters and invitations. The AVP also functions as the College's spokesperson and collaborates on strategic messaging with senior leadership, including the Board of Managers. Chris was a journalist before returning to the College in 2007. His online and television work has been honored with multiple awards, including Emmys for films such as the "Black Hawk Down" documentary that aired on CNN.

Mitchell Wein
Vice President for Finance, Chief Administrative Officer and Treasurer, The Corporation of Haverford College

The Vice President for Finance and Chief Administrative Officer serves as the chief financial and chief operating officer of the College and oversees a number of the business, financial and operating functions of the institution, including Human Resources, Accounting and Financial Services, Facilities Management, Safety and Security, Conferences and Events, Dining Services, Budgeting, Purchasing, Bookstore and various auxiliary activities. Prior to joining Haverford in 2014, Mitch spent seven years as Vice President for Finance and Administration, Treasurer at Lafayette College after having worked in the private sector for twenty years, largely serving colleges and universities as a Managing Director with UBS Investment Bank/UBS PaineWebber and PNC Capital Markets.

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Director, Division of Social Sciences; Professor of Sociology International and Area Studies, Yale University

Allan Antliff
Canada Research Chair in Modern and Contemporary Art, University of Victoria

Adam Ashforth
Professor of Afroamerican and African Studies, University of Michigan

Gerald Auten
Senior Lecturer and Director of The Studio Art Exhibition Program, Dartmouth College

Lisa Baglione
Professor and Chair of Political Science, St. Joseph's University

Gretchen Bauer
Professor and Chair of Political Science, University of Delaware

Tom Boellstorff
Professor of Anthropology, University of California-Irvine

Lee H. Butler, Jr.
Professor of Theology and Psychology, Chicago Theological Seminary

Caren Canier
Professor of Art, Rensselaer Polytechnic Institute

Kateri Carmola
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Victor Caston
Professor of Philosophy and Classical Studies, University of Michigan

Jack Censer
Professor of History, George Mason University

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Radcliffe Edmonds
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Elizabeth Freeman
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Jon Garrison
Retired Metropolitan Opera singer

Zemer Gitai
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Eugene Jarecki
Filmmaker

Jonathan Kirschenfeld
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Benjamin Lebrave
Founder of Akwaaba Music

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Samuel Lucas
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Humanist Chaplain, Harvard University and Yale University

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Associate Scholar and Lecturer, Department of Physics, Princeton University

Suresh Venkatasubramanian
John E. and Marva M. Warnock Associate Professor in the School of Computing, University of Utah

Edward A. Vessel
Research Scientist, New York University Center for Brain Imaging and Co-Director of the NYU ArtLab

Alycia Weinberger
Staff Astronomer, The Carnegie Institute of Washington Department of Terrestrial Magnetism

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2014–2015

The College's regular teaching faculty is supplemented annually by as many as one hundred scholars, artists, scientists and outstanding representatives of other fields who are invited as part of Haverford's Distinguished Visitors Program. Some may stay only a few hours, but most remain for a few days, or they may even conduct courses for an entire semester.

A typical visitor might give one or more public lectures, lunch with professional colleagues on the faculty, participate in a seminar or dine with student majors from Haverford and Bryn Mawr at the home of a department chairperson.

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FACILITIES MANAGEMENT
Donald Campbell
Director of Facilities Management

FINANCIAL AID
David J. Hoy
Director of Financial Aid

GIFTS AND BEQUESTS
Ann West Figueredo '84
Vice President for Institutional Advancement

INSTRUCTIONAL AND INFORMATION TECHNOLOGY SERVICES
Steve Fabiani
Interim Co-Chief Information Officer

Spencer Golden
Interim Co-Chief Information Officer and Director of Enterprise Systems

MEDICAL MATTERS
Catherine Sharbaugh
Director of Health Services

MULTICULTURAL AFFAIRS
Theresa M. Tensuan
Director of Multicultural Affairs

PUBLICATIONS AND PUBLIC AFFAIRS
Chris Mills '82
Assistant Vice President for College Communications

RECORDS AND TRANSCRIPTS
James Keane
Registrar

STUDENT AFFAIRS
Martha J. Denney
Dean of the College

STUDENT BILLS
Barbara Wilson
Student Accounts Coordinator

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