NOTICE

Information about fees, expenses, financial aid, and fellowships applies to the academic year 2017–2018.

The information presented in this publication is accurate as of July 2017 and is subject to change. Further inquiries should be addressed to the Office of Graduate Student Services, Wesleyan University, Middletown, CT 06459, (860) 685-2390. Additional information is available at wesleyan.edu/grad.

As required by law, a copy of the Wesleyan University security report is available upon request. This report includes statistics for three previous years on specific reported crimes that occurred on campus, on property that is owned or controlled by the University, and public property within a reasonably contiguous geographic area to campus. The report also includes institutional policies concerning campus security, crime prevention, the reporting of crimes, university policy on alcohol and drugs, and many other related matters. A copy of this report is available at the Office of Public Safety, or online at wesleyan.edu/publicsafety.
Graduate Education at Wesleyan University

Founded in 1831, Wesleyan is an independent university of the liberal arts and sciences. Graduate programs constitute an essential element of the special character of the institution. Wesleyan has offered traditional master’s degrees since 1889. In the early 1960s, the University developed programs leading to the doctor of philosophy in biology, chemistry, ethnomusicology, mathematics, molecular biology and biochemistry, and physics. In the 2016–2017 school year, there was a graduate enrollment of approximately 180 and a faculty of more than 365.

At the 185th commencement on May 28, 2017, the degree of PhD was awarded to 10 candidates, and the MA degree to 33 candidates. As of 2017, graduate students came from approximately 20 states within the United States and 30 nations around the world.

Degree Programs

Wesleyan University offers work leading to the doctor of philosophy degree in biology, chemistry, ethnomusicology, mathematics, molecular biology and biochemistry, and physics, and to the master of arts degree in astronomy, mathematics and computer science, earth and environmental sciences, and music. Theses and dissertations are required for these degrees. An interdepartmental program leading to the PhD degree is offered jointly by the chemistry and physics departments. An interdepartmental program in molecular biophysics leading to the PhD is offered by the departments of molecular biology and biochemistry and chemistry. A concentration in planetary science is offered by the departments of astronomy and earth and environmental sciences. All graduate instruction is scheduled within the academic calendar of two semesters from September to June. Summer work consists of independent study and research.

Generally, a minimum of two years of study beyond the baccalaureate degree is required for the master’s degree. The average time to complete a PhD is six years of study.

Most full-time graduate students are paid through assistantships. Tuition remission is also part of the candidate’s financial package. A limited number of dependency allowances are awarded on the basis of demonstrated financial need. The duties of graduate students vary by department but generally involve assistance in instruction and research.

Selection of courses is flexible and depends on recommendations from departmental advisors. Graduate programs are small enough to permit close attention to the needs and interests of the individual student. There is considerable variation among programs in format, requirements, and methods of work. The programs are innovative with respect to the needs and opportunities of the particular fields of knowledge.

Administration

Graduate studies at Wesleyan are overseen by the director of graduate studies and the director of graduate student services. The two directors work closely together on all aspects of the program that touch on academics and Graduate Community Standards Board matters. Matters related entirely to student life are handled by the Office of Graduate Student Services.

OFFICE OF GRADUATE STUDENT SERVICES (OGSS)

The Office of Graduate Student Services is the administrative center for all graduate students enrolled in the master of arts (MA) or doctor of philosophy (PhD) programs at Wesleyan. The general responsibilities of the office include graduate admission, academic records, registration and enrollment, payroll and stipend maintenance, health insurance administration, graduation audit, commencement, and the Graduate Community Standards Board.

The Office of Graduate Student Services is also responsible for the administration of all services to students in the BA/MA program in the natural sciences, mathematics, and psychology; the graduate German exchange programs; the foreign language teaching assistants in the Romance languages, Asian languages, the Arabic language; and the Ford Fellow and Kim-Frank Fellow in the Writing Programs.

THE GRADUATE COUNCIL

The Graduate Council is the advisory board for graduate programs. In conjunction with graduate academic departments, the Graduate Council maintains academic standards, approves and recommends changes in broad educational policy at the graduate level, advises the administration on other matters pertaining to graduate education, and oversees the work of the Graduate Community Standards Board. The council consists of one representative from each of the six PhD-granting programs, one representative each from two departments offering MA programs, one representative and the president from the Graduate Student Association, and the director of the Office of Graduate Student Services. The director of graduate studies is ex officio chair of the Graduate Council.

Application and Admission to Candidacy

APPLICATION

In the year preceding entrance, and in accordance with individual departmental application deadlines, prospective students submit the online application for graduate study. Official undergraduate/graduate transcripts, GRE scores, and letters of recommendation and other supplementary materials required by specific departments should be submitted with the application.

Transcripts of Previous Study. Prospective candidates who hold baccalaureate or advanced degrees from colleges other than Wesleyan must submit official transcripts.
Foreign Languages. Specific language preparation is usually required as either part of the application or as part of the program of study. Departmental statements regarding mastery of a second language may be found on the department’s website.

Notification of Acceptance. Students will be notified via the online admission portal of preliminary acceptance into the graduate program. Final acceptance is subject to the student’s satisfactory completion of work for the baccalaureate degree and meeting the health requirements as set by the state of Connecticut.

International Students. Students whose first language is not English will be expected to demonstrate a proficiency in English sufficient to undertake graduate study. This includes the ability to read, write, and speak the language. International graduate students should submit test results from the Test of English as a Foreign Language (TOEFL) exam administered by the College Entrance Examination Board, Educational Testing Service, Princeton, New Jersey. On arrival, international students must report to the Designated School Official (DSO). Under current U.S. federal tax regulations, teaching and/or research assistantship stipends may be subject to U.S. federal income taxes. International students should consult the international tax advisor on campus regarding their particular situation.

PROGRAM OF STUDY
Prior to initial registration, students will arrange a program of study with the department in which they are accepted. The program may be confined to a single field, or it may include work in more than one field if recommended by the academic advisor in the department in which the degree is to be awarded.

Programs generally include at least one year of research leading to the thesis or dissertation, with the student registering in Advanced Research (549 and 550) courses in their field of study. At least two thirds of the coursework contributing to the degree program must be carried out under the direction of members of the Wesleyan faculty.

TESTS OF PROFICIENCY
Evidence of the candidate’s proficiency in the approved program of study shall be determined by 1) an examination, oral or written or both, and 2) a thesis which may include original creative work, as in the field of music.

In addition to the minimum requirements, departments may, at their discretion, set oral or written examinations, or other prescribed work, exercises, or requirements, at any point in the program.

1. Each degree candidate must pass an oral examination. All examinations are conducted at the University.
2. The candidate is required to upload a complete final copy of the thesis to WesScholar. The thesis must have the approval, in writing, of two or more instructors from the appropriate department.

BA/MA PROGRAM
Wesleyan offers a BA/MA program in the natural sciences, mathematics, and psychology as a formal curricular option for Wesleyan undergraduate students who are interested in an intensive research experience. The program has a research orientation and includes coursework, seminars, and, in some cases, teaching. The program provides a strong professional background for further advanced study or employment in industry. The expected period for completion of the MA portion of the program is two semesters beyond the completion of the BA degree. Students who complete the BA degree in fewer than eight semesters are eligible to apply. Departments and faculty advisors will pay careful attention to the coursework and research backgrounds of students completing the BA in fewer than eight semesters to be sure they are able to meet all the expectations of the program. BA/MA students are full-time, in-residence students during the two semesters of MA work. The two semesters of MA work immediately follow the completion of the BA degree requirements.

BA/MA PROGRAM REQUIREMENTS
Careful planning of one’s schedule of courses and research is essential for completion of both the BA and MA. Students in the BA/MA program are expected to submit an MA thesis describing the research that they have carried out in partial fulfillment of the degree requirements. Many students in the program choose not to write a BA honors thesis because they will be writing a more substantial MA thesis based on the same project the following year. However, there is no prohibition against writing a BA thesis should the student wish to do so. This does not relieve the student of the obligation to submit an MA thesis.

• In addition to the 32 credits necessary for the Wesleyan BA, a minimum of six to eight credits are required for the MA. Of these six to eight credits, two to four (at the department’s discretion) must be in advanced coursework. The remaining credits may be earned through research and seminar courses.
• The student must complete at least two semesters of thesis research culminating in an MA thesis.

PLEASE NOTE
• Students in the program who earn more than 32 credits for the BA may apply excess credits toward fulfillment of the MA requirements, providing that the credits are for courses in the major area or a related area, that the courses have not been used to fulfill the undergraduate major requirement, and that the student received a grade of B- or higher.
• MA credit will only be awarded for academic exercises in which grades of B- or higher are earned.
• Some students find it necessary to revise their program of study.

TUITION AND FEES
Tuition for two semesters of post-BA work toward the MA degree is waived, including courses offered during summer and winter sessions. The tuition waiver is not applicable to study abroad courses. In the exceptional case that a student needs an additional semester to complete the MA thesis component of the program, the student will be charged an extension fee of $250.
Coursework beyond the two semesters of the MA is not part of the program. A limited number of meal plan stipends are available to eligible students upon application. Students who have completed the BA requirements and received Wesleyan grant aid during the final year of the BA program are eligible to apply for a meal plan stipend. The meal plan stipend provides the all-points plan free of charge for the two semesters of the MA that are tuition-free. The meal plan stipend is not available during summer and winter breaks. Students are welcome to participate in the Middletown Cash program. Some students may be able to find financial support either from research grant funds or by serving as teaching assistants during the two semesters of MA work. Please note that student accounts must be in good standing before beginning the MA portion of the program.

**APPLYING FOR THE BA/MA PROGRAM**

Students wishing to apply for the BA/MA program are advised to contact their department as early in the process as possible. Students should apply to the BA/MA program in the semester prior to the semester in which the BA degree is completed. For example, a student completing the BA in May should apply the previous fall, and a student completing the BA in December should apply the previous spring. Applications to begin the MA portion of the BA/MA program in the fall semester are due December 1. Applications to begin the MA portion of the program in the spring semester are due March 1.

Supplemental materials required with the application include:

1) **Research Proposal:** A brief description of research you have done and the research you propose to conduct.

2) **Program of Study:** The schedule of courses that you will use to satisfy the requirements for the MA degree, approved by your master's thesis advisor.

3) **Personal Statement:** A brief statement of why you are interested in this program and how it fits with your future career plans.

4) **Recommendations:** At least two letters of recommendation, one from your faculty advisor and one from an additional Wesleyan faculty member.

5) **Transcript:** A copy of your undergraduate transcript(s). If you wish, you may include a statement of why you feel your transcript is not an accurate reflection of your academic ability.

Departments review all applications and indicate whether or not they support the application. Applications are then reviewed by the director of graduate studies.

**IMPORTANT DATES FOR THE BA/MA APPLICATION PROCESS**

There are two application deadlines, one in the fall semester (December 1) and one in the spring semester (March 1). Students should apply to the BA/MA program in the semester prior to the semester in which the BA degree is completed. For example, a student graduating in May should apply the previous fall, and a student finishing in December should apply the previous spring.

**DATES FOR APPLICATIONS SUBMITTED IN THE FALL SEMESTER** (to start the MA portion in the next fall term):
- **December 1** Applications are due.
- **January 12** Departments complete review of applications.
- **January 31** Students receive notification of admission decision from the director of graduate studies.

**DATES FOR APPLICATIONS SUBMITTED IN THE SPRING SEMESTER** (to start the MA portion in the next spring term):
- **March 1** Applications are due.
- **March 21** Departments complete review of applications.
- **April 7** Students receive notification of admission decision from the director of graduate studies.

**BA/MA PROGRAM REGULATIONS**

The Office of Graduate Student Services will review the academic records of all BA/MA students at the end of the first semester of the MA. Warnings will be sent to any student (and the student’s advisor) who is in danger of not fulfilling course requirements for the MA degree by virtue of having received a failing grade (B- or below) in a course. A student with no chance of fulfilling the requirements for the MA degree by the end of the second semester may be required to withdraw from the University, subject to approval by the department.

BA/MA students are full-time, in-residence students during the two semesters of MA work. The two semesters of MA work immediately follow the completion of the BA degree requirements.

BA/MA students who have completed all of the course requirements for the MA degree but have not completed the thesis will be classified as ABD-NOT and may continue as ABD-NOT for a maximum of two years. Students classified as ABD-NOT continue research and writing, do not enroll in courses, are not eligible for tuition remission, are not eligible for the meal plan stipend, are not eligible for federal student loan deferment, and pay a nominal fee of $250 per semester. In exceptional circumstances, students may petition their academic department for a one-year extension beyond the two-year limit for ABD status. University housing beyond two semesters of work toward the MA is not guaranteed; new graduate students have priority for university housing.

**SPECIAL GRADUATE STUDENTS**

Wesleyan University offers individuals the opportunity to take graduate courses on a per-credit, non-degree basis as a special graduate student. Individuals accepted for this category may enroll in up to two courses per semester with the instructor’s approval. Enrollment may not displace a degree-seeking student. Special graduate students may take courses during the fall and spring semesters. Summer and winter session courses are not available to special graduate students.

**APPLICATION:**

- Completed applications, an official transcript of the student’s most recent academic work, and a check payable to Wesleyan University for $55 non-refundable application fee must be submitted to the Office of Graduate Student Services.
COURSE REGISTRATION:
• The special graduate student is required to obtain written permission from the instructor of the course in which he or she wishes to be enrolled, and permission from the chair of the department under which the course is offered. Submit completed forms to the Office of Graduate Student Services.

TUITION:
• Tuition for special graduate students is Wesleyan’s per-credit tuition rate.

PAYMENT:
• Payment in full is due with registration. Payment may be made by check or money order, payable to Wesleyan University. Special graduate students are not eligible for financial aid, housing, or services at the Davison Health Center. Special graduate students are not charged the graduate activity fee. Special graduate students are subject to the Honor Code and Code of Non-Academic Conduct.

For more information please contact the Office of Graduate Student Services at wesleyan.edu/grad or 860-685-2390.
The application and forms are available online at wesleyan.edu/grad/degree-programs.

General Regulations

REGISTRATION AND COURSE SELECTIONS
Graduate students are required to enroll in the university via their Wesleyan portal at the beginning of each semester. A student who fails to complete the semester’s enrollment may be charged a fee of $25 for late enrollment.

TIME LIMITS AND TUITION CHARGES
Requirements for the degree of master of arts may be satisfied in two years of full-time study. The requirements must ordinarily be met within four years from the start of the semester in which the student was admitted to candidacy. There is a $250 continuation fee per semester after two years of study. The student must have approval of the faculty advisor or chair of the department to continue beyond the first two years.

Graduate students at the PhD level who are paid a stipend continue to receive full tuition waiver and insurance benefits as part of their compensation for service to the University as either a teaching assistant, a research assistant, or in some other capacity.

Stipend payments and tuition remission are contingent upon the student remaining in good academic standing and fulfilling the work expectations of the assistantship as defined by the department.

<table>
<thead>
<tr>
<th>STUDENT CATEGORY</th>
<th>TUITION CHARGES</th>
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<tbody>
<tr>
<td>Grad students in the BA/MA program</td>
<td>NONE (tuition remission for two consecutive semesters)</td>
</tr>
<tr>
<td>Grad students not on stipend</td>
<td>$250/SEMESTER</td>
</tr>
<tr>
<td>Tutorial/research, first credit</td>
<td></td>
</tr>
<tr>
<td>Regular courses</td>
<td>$6,521/CREDIT/1 COURSE (2017–2018)</td>
</tr>
<tr>
<td>Grad students supported on stipend</td>
<td>NONE (tuition remission)</td>
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Petition for tuition aid in cases of extreme hardship may be made through the student’s home department to the director of graduate studies. Graduate applicants may not be admitted without a stipend unless authorized by the provost and vice president of academic affairs.

CHANGE OF NAME OR ADDRESS
All students are responsible for informing the University of name and address changes so that university records are up to date. Students should enter changes in their electronic portal. Written notice of a change of name should be submitted to the Office of Graduate Student Services.

LEAVE, WITHDRAWAL, SEPARATION, LEAVE OF ABSENCE

Non-Academic Leave of Absence. Students wishing to take a leave of absence must submit a request for leave of absence to the Office of Graduate Student Services.

The non-academic leave of absence is intended for students not planning to obtain academic credit while on leave. Those students expecting to return from a non-academic leave of absence must notify the Office of Graduate Student Services of their intention. This notification must be in writing, with the endorsement of the academic advisor, and must be received no later than March 15 or November 1 prior to the semester of return.

• Students are not eligible for university funding during their leave of absence. This includes tuition remission and stipend support.
• Students are not eligible for university graduate housing during their leave of absence.
• Students on leave are not entitled to the services of the Davison Health Center or Counseling and Psychological Services (CAPS).
• Students on approved leave may continue their Wesleyan-sponsored health plan coverage if they have paid the premiums to the university-sponsored health plan for this coverage while enrolled at the University. For more information, go to gallagherstudent.com.

Although leaves of absence are ordinarily granted for one semester or one academic year, students may apply to extend a leave by contacting the director of graduate student services and his/her faculty advisor. Such extensions should be requested prior to the expiration of the original leave. A student on a leave for more than four consecutive semesters is considered as having voluntarily withdrawn from Wesleyan.

Medical Leave of Absence. A medical leave is authorized by the director of graduate studies on the basis of a recommendation from the medical director of University Health Services (UHS) or the director of Counseling and Psychological Services (CAPS).
Students on a medical leave must leave campus and focus on the evaluation of, treatment for, and recovery from the illness or condition which necessitates the leave. The director of graduate studies will communicate the terms of the leave as well as the conditions and procedures for returning to Wesleyan. When a medical leave is authorized, students are withdrawn from the courses in which they are enrolled. In exceptional cases, some incomplete grades may be granted, depending on course content, faculty approval, and the date of the leave. Outstanding work in the course(s) must be submitted by the first day of classes of the returning semester.

Medical leaves typically require the positive recommendation of the medical director of UHS or the director of CAPS. Students considering a medical leave should consult with one or both of these offices. The director of graduate student services can help facilitate a meeting if students do not already have an established relationship with a Wesleyan medical provider or therapist. In cases where a primary medical provider or therapist is off campus, students should request a letter (sent directly to the medical director of UHS or the director of CAPS) recommending and supporting a medical leave. The letter should include details regarding the condition, illness, or diagnosis, and an anticipated plan of evaluation and treatment.

After the case has been reviewed by the appropriate Wesleyan staff member, the medical director of UHS or the director of CAPS will forward their recommendation to the director of graduate student services. The director of graduate student services will confer with the director of graduate studies who will communicate the terms of the leave as well as the conditions and procedures for returning to Wesleyan.

The minimum duration of a medical leave is the balance of the semester in which it is authorized. The maximum duration of a medical leave for students on stipend who wish to receive the stipend upon return is four semesters. Students are eligible to initiate a request to return once they have received appropriate treatment and consulted with their CAPS therapist. Engaging in on-campus activities while on medical leave cannot be considered part of a student’s treatment plan.

**Returning from a Medical Leave.** Students currently on a medical leave should notify the director of graduate student services when they are prepared to return to Wesleyan. Letters of intent are due no later than July 1 for the fall semester and November 1 for the spring semester. The primary provider responsible for treatment during the leave should provide diagnosis and treatment documentation directly to the medical director of UHS or the director of CAPS. The deadline for receipt of all required materials is July 15 for the fall semester and December 1 for the spring semester.

After the case has been reviewed by the appropriate Wesleyan staff member, the medical director of UHS or the director of CAPS and the director of graduate student services will meet with the director of graduate studies concerning the student’s preparedness to return to the University as a full-time student in residence. The director of graduate studies will make the final decision concerning the student’s return, and will communicate the decision to the student. The director of graduate student services will coordinate the student’s return to campus. After returning from a medical leave, students will be expected to meet with appropriate UHS or CAPS staff member(s) as directed.

- Students are not eligible for university funding during their leave of absence. This includes tuition remission and stipend support.
- Students are not eligible for university graduate housing during their leave of absence.
- Students on leave are not entitled to the services of the Davison Health Center or Counseling and Psychological Services (CAPS).
- Students on approved leave may continue their Wesleyan-sponsored health plan coverage if they have paid the premiums to the university-sponsored health plan for this coverage while enrolled at the University. For more information, go to gallagherstudent.com.

In cases where a leave of absence is granted for a specified amount of time, students may apply to extend a leave by contacting the director of graduate student services and their faculty advisor. Such extensions should be requested prior to the expiration of the original leave.

**Parental Leave.** Graduate students who receive university-funded stipends are eligible for a six-week paid parental leave. This applies to both birth and adoption. In most cases, the six-week leave should be taken when the child is born or adopted. In some instances, subject to approval, the leave may be delayed but not usually beyond six months of the child coming into the home.

**Voluntary Withdrawal.** This term applies to a student who withdraws from a program of study at any time on the student’s own initiative, but with the approval of the graduate department or program chair, and of the director of graduate studies.

The Office of Graduate Student Services must be informed, in writing, of the desire to withdraw. This notice must include a statement from the department or program chair stating the conditions of termination, recommendations for recording grades, and the conditions of readmission, if applicable.

**Separation.** This designation refers to students required to resign for academic reasons. This category of discipline is used when the student’s academic deficiencies are so serious as to warrant the student’s departure from the University. The director of graduate student services receives written notification directly from the faculty advisor or department chair. The notation “separated” will be entered on the student’s official transcript.

**GRADES AND COMPLETION OF WORK IN COURSES**

A student’s work toward the MA or PhD degree is graded as follows: A, excellent, numerical value, 95; B, good, 85; C, 75; D, 65; E, 55; and F, 45. Letter grades may be modified by the use of plus and minus signs.

A faculty member, in designing any course or tutorial, has the option of giving grades of CR (credit) or U (unsatisfactory) to all members of the course. This option is declared when the course is submitted to the department for inclusion in the curriculum, and information that the course is to be graded on a CR-U basis should be available to students before their registration in the course. Any faculty member employing the CR-U system shall submit a written evaluation of each student’s work in the course to the registrar.
In programs leading to the degree of doctor of philosophy or master of arts, the student must earn a grade of B- (80) or better in courses where letter grades are awarded. This required minimum grade also applies to the student’s performance on the oral examination in the department’s master’s program, to the thesis independent study, and to thesis research. Stipend payments and tuition remission are contingent upon a student remaining in good academic standing and fulfilling the work expectations of the assistantship as defined by the department.

In case of failure to complete the required work of a course, the grade of IN (incomplete) may be awarded to a graduate student. Grades of incomplete will be accompanied by a provisional grade that will become the final grade if the outstanding work in the course is not submitted by the first day of classes of the subsequent semester.

**ALL BUT DISSERTATION**
Students who complete coursework and continue to conduct research and work on writing a thesis/dissertation are considered ABD (All But Dissertation). ABD students fall into one of three categories:

**ABD ENRL (ABD Enrolled):** Students may be ABD-ENRL for up to 10 semesters
- Enrolled in the University
- Eligible to enroll in courses
- Registered for Advanced Research (549/550)
- Not charged a continuation fee
- Eligible for campus housing
- Eligible for loan deferment
- May or may not receive a stipend

**ABD Field:** Students may be ABD Field for up to four semesters; the semesters of ABD Field are considered part of the 10 overall semesters of ABD Enrolled
- Off campus conducting research in the field
- Not enrolled in courses or research
- Not eligible for campus housing

**ABD-NOT (ABD Not Enrolled):** Students may be ABD-NOT for up to 10 semesters
- PhD and MA: Not enrolled in courses including Advanced Research (549/550) and tutorials
- BA/MA: Successfully completed courses as outlined in the program of study including Advanced Research (549/550), but not completed thesis
- Not receiving a stipend
- Not eligible for campus housing
- Charged $250 per semester continuation fee for up to 10 semesters
- Not eligible for student loan deferment

**Degree Requirements**
In addition to the departmental requirements, graduate students in the PhD and MA programs are required to enroll in one semester of graduate pedagogy and at least two semesters of advanced research. Degrees are awarded once a year at Commencement. Students who complete the requirements for the degree at other times during the year will be recommended to receive the degree at the next Commencement.

**Fees and Financial Aid**

**TUITION**
In programs leading to the degrees of doctor of philosophy and master of arts, the tuition for the two semesters of the academic year 2017–2018 has been set at $52,174. Special graduate students will be assessed $6,521 per one credit course per semester.

**Schedule of Special Fees for MA and PhD Candidates:**
- Basic Student Health Insurance through Gallagaher Insurance: refer to gallagherstudent.com
- Fees for Wesleyan-sponsored health insurance will be charged to the student’s account.
- Fees charged to the student’s account are the responsibility of the student.
- HMO Health Insurance through Cigna: refer to cigna.com
  (available only for graduate students receiving a stipend)
- Graduate Student Activity Fee: $20

**FINANCIAL AID**
Arrangements for assistantships and the awarding of scholarships are made through individual graduate departments. Stipend arrangements vary by department. Applicants should refer to respective departments for details. Under current U.S. federal tax regulations, assistantship stipends to cover the cost of room and board are generally subject to U.S. federal income taxes. Students should consider consulting with a tax advisor regarding their particular situation. Limited dependency allowances are available for those who demonstrate financial need.

**Student Loans.** Graduate students may be eligible to borrow through the Federal Stafford Loan Program providing they are matriculated at least half-time and are either U.S. citizens or eligible noncitizens.

Graduate students may obtain information and application forms from the Financial Aid Office. Forms may be downloaded from wesleyan.edu/finaid. A separate Federal Stafford Loan Master Promissory Note (MPN) is required from a lender. Once eligibility
is determined, students will receive instructions regarding the steps to take to allow loan processing by the Wesleyan University Financial Aid Office. Application processing can take up to four weeks.

**International Students.** Passports must be valid for six months beyond the date on the Certificate of Eligibility (SEVIS Form I-20AB or DS-2019), which is provided by Wesleyan or the sponsoring agency. Students are responsible for maintaining the validity of passports throughout their time in the United States. The nearest consulate of the student’s home country will revalidate the passport or issue a new one if necessary. International students should contact the Designated School Official (DSO) for more information.

**Graduate Community Standards Board**

Upon arrival on campus, graduate students sign an agreement via their electronic portal to abide by Wesleyan’s Honor Code and Code of Non-Academic Conduct. The Graduate Community Standards Board (GCSB) is responsible for adjudicating alleged violations of these codes by a Wesleyan graduate student. The GCSB is comprised of seven graduate students and is overseen and advised by one faculty member of the Graduate Council, the director of graduate studies, and the director of graduate student services.

**Mission Statement:** As an essential element of student governance, the Graduate Community Standards Board exists to uphold the standards of the Wesleyan community by providing equitable and unbiased peer adjudication of alleged student violations of the Honor Code and the Code of Non-Academic Conduct. The board seeks to respond constructively, fairly, and effectively to alleged violations. In order to do so, the board makes every effort to respond to all cases in a timely manner, to ensure that all students are aware of their rights within the judicial process, and to protect those rights. The board strives to deal with cases in a manner that is conducive to a student’s personal growth and accountability to the Wesleyan community.

**REGULATIONS OF AND JUDICIAL PROCESS FOR THE GRADUATE COMMUNITY STANDARDS BOARD (REVISED JULY 2017)**

I. **GRADUATE COMMUNITY STANDARDS BOARD**

A. Composition and Tenure

1. The voting membership of the Community Standards Judicial Board (GCSB) shall consist of seven graduate students, each serving a one-year term.
2. The advisory membership of the GCSB shall consist of one faculty member, serving a two-year term, as well as the directors of graduate student services and graduate studies, each serving ex officio.

B. Selection

1. The voting membership of the GCSB shall be selected from the registered MA and PhD seeking graduate students of the University.
2. All voting members shall be selected for one full academic year, including both fall and spring semesters. Additional members may be selected to fill vacancies. Substitute members will serve for the duration of the unexpired term.
3. Voting members shall be elected by the Graduate Student Association.
4. A voting member of the GCSB may be removed from the board, for cause, by the Graduate Council. Complaints against a voting member of the GCSB should be submitted to the director of graduate studies.
5. A graduate student who is a GCSB member and is named as a respondent to a complaint may not serve on a hearing panel while that complaint is pending resolution.
6. A graduate student found responsible for a violation of the honor code or code of non-academic conduct may not serve as a member of the GCSB.
7. A voting member of the GCSB may serve concurrently on the Graduate Council.
8. The faculty advisors to the GCSB will be selected by the Graduate Council and will be expected to participate in GCSB training.

C. Officers

1. The voting members shall select, with the approval of the director of graduate studies, one chair, normally serving a one-year term.
2. The chair shall review complaints as they are received by the director of graduate studies or the director of graduate student services, consult with the administrative advisor(s) on the appropriate method of adjudication, and schedule judicial hearings as appropriate. The chair will maintain records in a form approved by the director of graduate student services.

D. Responsibilities

1. The GCSB shall hear complaints concerning alleged violations of the Code of Non-Academic Conduct and/or the Honor Code by graduate students or by graduate student groups. When appropriate, the GCSB shall attempt to refer cases for mediation prior to any formal adjudication. Cases involving allegations of sexual assault may not be referred for mediation and will be adjudicated in accordance with the procedures outlined in the Discriminatory Harassment and Sexual Misconduct policy wesleyan.edu/inclusion/misconduct/index.html. In all cases, the GCSB shall determine the level of individual and/or group responsibility for the incident leading to the complaint.
2. The GCSB shall be responsible for primary adjudication of all alleged violations of the Code of Non-Academic Conduct and the Honor Code, except those cases that may arise when the GCSB cannot convene (summer, recess periods, etc.). Cases
arising when the GCSB cannot convene may be held in abeyance until such time as the GCSB reconvenes, may be disposed of via judicial conference, or may be adjudicated by an interim administrative judicial board.

3. In order to permit the expeditious handling of cases in which mediation is feasible or of minor judicial matters, the GCSB may, with the approval of the director of graduate studies, develop simplified procedures and may delegate the responsibilities for mediation or adjudication.

4. In judicial matters, the GCSB shall receive evidence, hear witnesses, determine if the reported graduate student(s) or group is responsible for violations of the Code of Non-Academic Conduct or the Honor Code, and shall recommend sanctions. In a formal sense, the authority to impose sanctions in the name of the University must be vested in an officer of the University. The board will forward its finding and recommended sanction(s) to the vice president for student affairs who will review and implement them in the name of the University. The considered judgment of the board shall be taken by the vice president for student affairs as a binding recommendation, to be modified only in extraordinary circumstances.

5. The role of the faculty and administrative advisor(s) is to brief the GCSB before each hearing to ensure a clear understanding of the regulation(s) in question and of the hearing procedures. The advisor(s) shall advise the chair during hearings to see that the board correctly follows procedures. They may offer information and assist the chair in facilitation. They may also offer advice or clarification regarding appropriate sanctions or questions regarding policies and procedures during deliberations in closed session.

II. JUDICIAL PROCEDURES

A. Students' Rights

1. Written notice of charges, including time and place of the alleged violation, at least seventy-two (72) hours prior to a GCSB hearing.

2. Advice from the Office of Graduate Student Services in preparing for a hearing.

3. Resolution of charges in accordance with judicial system policies as outlined.

4. Review of the reports that serve as the basis for the charge(s).

5. Participation in the hearing, if the case is not resolved via judicial conference.

6. Assistance from a process advisor.

7. Written notice of the hearing decision.

8. File an appeal.

9. Confidentiality regarding the outcome of their hearing (except for the complainant’s right to be informed of the hearing decision).

B. Reports of Violations

Although some alleged violations are documented by the Office of Public Safety, any individual who is aware of a violation of the Code of Non-Academic Conduct or the Honor Code may submit a report to the director of graduate studies or the director of graduate student services. Reports should be submitted as soon as possible, but preferably within five (5) days of the incident. Reports must be in writing and contain a complete description of the incident with the names of all parties involved as participants or witnesses. The University may file a complaint when violations of the Code of Non-Academic Conduct harm salaried employees, university guests or neighbors, or if witnesses are unwilling to pursue the matter.

The Code of Non-Academic Conduct applies to groups as well as to individuals. Whenever a complaint is filed with the GCSB, the officers of the GCSB and an administrative advisor will review the complaint to determine the degree to which a group may be responsible for the actions leading to the complaint. If it is determined that a group may be responsible for a violation of the Code, the GCSB will take appropriate action with respect to the group as well as the individuals involved.

C. Notification of Charges

The respondent will receive written notification of alleged violations of the Code of Non-Academic Conduct or the Honor Code. The respondent must respond to the notice of charges within the time frame outlined in the notification. The University’s primary means of communicating with graduate students is through their Wesleyan e-mail accounts. Graduate students are responsible for reading and responding to e-mail from university officials.

D. Adjudication Procedures

There are several adjudication procedures used to resolve cases. The GCSB chair and administrative advisor(s) will meet to review cases submitted for adjudication. This group will determine the appropriate adjudication procedure for resolving the case. If the group is unable to come to consensus on an adjudication procedure for a particular case, the director of graduate studies may make the final determination.

1. Judicial Conference

Minor judicial matters and Non-Academic Conduct cases where mediation is feasible will be referred to the director of graduate student services who will contact the respondent(s) and attempt to resolve the case via a judicial conference. During the judicial conference, the respondent(s) and the director of graduate student services will discuss the incident, alleged violations, and possible sanctions. If an agreement regarding the student’s level of responsibility and sanctions (if appropriate) can be reached during the conference, the student will sign a summary/response form indicating their agreement with the proposed resolution and the case will be considered closed. If no agreement can be reached, the case will be referred to the Graduate Community Standards Board for formal adjudication.
If a student is facing more serious charges, the student may request a judicial conference with the director of graduate studies or designee. The conference will be conducted as outlined above, but the full range of sanctions is available to the director. The director will consult the chair of the GCSB before imposing sanctions.

2. **Simplified GCSB Hearings**

In cases involving minor violations, the GCSB shall convene a simplified hearing. At such a hearing, the board shall meet with three voting members present. Although permitted, advisors do not normally attend simplified hearings. A limited range of sanctions including disciplinary warning, disciplinary probation, community service assignments, fines, restitution, and educational assignments is available in the procedure. If, during the course of a simplified hearing, the GCSB determines that the nature of the violation and/or probable sanctions are more serious than anticipated, the simplified hearing may be adjourned in favor of a full hearing.

3. **Full GCSB Hearings**

In cases involving violations that are deemed to be serious, the GCSB shall convene a full hearing. At such a hearing, the board shall meet with five voting members present, at least one faculty advisor, and the director of graduate studies. The full range of sanctions is available in this procedure. In cases where the administration identifies itself as the aggrieved party, the administrative advisor should withdraw and will be replaced by the second faculty advisor. This procedure should not be followed when the administration brings a case on behalf of an aggrieved third party.

If a graduate student’s continued presence on campus endangers university property, the physical safety or well-being of other members of the university community, affects the individual’s physical or emotional safety or well-being, or disrupts the educational process of the community, the director of graduate studies may request an expedited hearing.

An expedited hearing will be convened immediately (typically within 48 hours) and may involve an interim board if the GCSB is unable to convene on such short notice. Examples of cases that warrant such a hearing include, but are not limited to, cases involving arson, assault, sexual misconduct, threats, and reckless endangerment. The director of graduate studies has the authority to place a student on an immediate suspension pending the outcome of the hearing.

4. **Joint Graduate Student - Administrative Panel**

When the GCSB chair and advisors determine that a case involves egregious violations and/or serious violations where external legal charges may also result from the alleged conduct, a joint student-administrative panel may be convened to hear the case. At such a hearing, the panel shall be comprised of two graduate student members of the GCSB and two administrators, all with full voice and vote. At least one of the GCSB’s administrative advisors should serve on the panel. The full range of sanctions is available in this procedure. If the panel is unable to come to a consensus on the case during deliberations, the director of graduate studies may make the final determination. The director of graduate studies may consult with the University’s legal advisor if appropriate.

5. **Joint Graduate Community Standards Board-Undergraduate Community Standards Board Panel**

When the GCSB chair determines that a case involves both an undergraduate student(s) and a graduate student(s), a joint GCSB-CSB panel may be convened to hear the case. At such a hearing, the panel shall be comprised of two student members and one advisor member from each of the GCSB and CSB panels. A graduate student is defined as a student who has completed all bachelor’s degree requirements and received a four-year undergraduate degree.

6. **Interim Administrative Panel**

An interim administrative board shall be comprised of the director of graduate studies, the director of graduate student services, and at least one graduate student member of the GCSB. The director of graduate studies will consult with a designated representative from the GCSB in order to determine the manner in which cases should be resolved when the GCSB cannot convene.

E. **Hearing Procedures**

1. The chair will conduct the hearing according to the following procedures:
   a. The chair will inform the respondent(s) of the alleged violation(s).
   b. The respondent(s) will acknowledge whether they are responsible or not responsible for the violation(s).
   c. The complainant(s) and witnesses (if any) will have the opportunity to make opening statements and offer their account of the incident.
   d. The respondent(s) and their witnesses (if any) will have the opportunity to make opening statements and offer their account of the incident.
   e. The complainant(s) and the respondent(s) may question each other and any witnesses. Questions are directed to the board who then redirects them to the appropriate party.
   f. Board members may question the complainant(s), the respondent(s), and/or any witnesses.
   g. The complainant(s) and the respondent(s) may make closing statements.

In cases where the complainant(s) or respondent(s) fail to appear, the chair may modify these procedures.

2. All parties involved in the hearing may review available written evidence in the case file before the hearing.

3. All judicial hearings shall be conducted in accordance with the standards of fair process. Specifically, the respondent should be informed of the nature of the charges, be given a fair opportunity to refute them, and the opportunity to appeal the board’s decision. Any board members who feel they cannot be impartial in a given case may recuse themselves and will be replaced by other voting members.
10. A respondent may bring an advisor to a hearing. The advisor must be a graduate student, a member of the faculty, or an
administrator at the University. During the hearing, the advisor may only advise during recesses granted by the board and
may clarify procedural questions before, during, or after the hearing.

11. The board will make decisions about responsibility and sanction(s), if appropriate, during closed session, and their decisions
regarding responsibility shall be based on the evidential standard of "fair preponderance." The board is responsible for
determining if it is more likely than not that the alleged violation occurred. The party bringing the charges need not provide
evidence beyond a reasonable doubt in a hearing. Decisions rendered during hearings shall be by majority vote of the vot-
ing members present. The board will forward its finding and recommended sanction(s) to the director of graduate studies
who will review and implement them in the name of the University. The considered judgment of the board shall be taken
by the director of graduate studies as a binding recommendation, to be modified only in extraordinary circumstances. The
respondent(s) will be notified in writing via e-mail of the hearing outcome and imposed sanctions (if applicable) as well as
guidelines for filing an appeal.

12. The University requires that judicial boards and administrative staff maintain confidentiality regarding judicial matters.
Individual(s) who reported the alleged violation(s) will be informed of the board’s decision. Information about assigned
sanctions will be shared with reporting parties as deemed appropriate by the board.

F. Hearing Findings

1. Not responsible
A decision that the respondent is not responsible for a violation of the Code of Non-Academic Conduct nor the Honor
Code, or that there is insufficient evidence to establish that a student is responsible for the alleged violation(s).

2. Responsible
A decision that the respondent is responsible for a violation of policy as charged. A finding of violation of the Honor Code
shall require the unanimous vote of the board.

G. Hearing Sanctions

1. In cases of violation of the Honor Code, the board shall invoke such sanctions as it sees fit. The board will forward its find-
ing and recommended sanction(s) to the vice president for student affairs who will review and implement them in the
name of the University. The considered judgment of the board shall be taken by the vice president for student affairs as a
binding recommendation, to be modified only in extraordinary circumstances. When sanctions entail changes in grades,
the faculty member(s) involved is(are) required to implement the decision of the GCSB.

2. The board will consider a range of sanctions of graduated severity to deal with infractions of varying seriousness including
but not limited to community service, fines, restitution, educational assignments, and referrals to other university admin-
istrators. Based on the findings, the board will normally recommend the imposition of one of the following sanctions:

   a. Disciplinary Warning: An official written reprimand that includes a warning that further violations of the Code of Non-
      Academic Conduct or the Honor Code will result in more serious sanctions.

   b. Disciplinary Probation: A temporary status for a period to be established by the board, during which the graduate stu-
      dent’s standing within the University is in question. Additional violations during the probationary period may result in
      suspension or dismissal.

   c. Deferred Suspension: A status imposed by the board, indicating the graduate student’s standing within the University
      is in jeopardy. Additional violations during the probationary period will result in suspension or dismissal.
I. Additional Procedures

H. Appeals

1. Violation of fair process;
2. New evidence that was not reasonably available at the time of the hearing;
3. Procedural error (if the error adversely affected the outcome of the hearing).

Sanctions Related to Group Behavior:

a. A written disciplinary warning with a copy maintained in the judicial file. The warning may specify corrective measures that can help the group avoid similar complaints in the future.

b. Disciplinary probation for a period to be established by the board, implying that the group’s standing within the University is in jeopardy and that further negligent or willful violations will normally result in suspension of university recognition or affiliation. Disciplinary probation may include restrictions on the group’s functions during the probationary period. The group should also be informed of corrective measures that must be undertaken during the probationary period and maintained after its conclusion.

c. Suspension of University Recognition: a group desiring to reestablish a relationship with the University must reapply for recognition or affiliation by the University through the director of graduate studies.

II. Additional Procedures

1. Internal Injunctions

One special power, which may be exercised by the GCSB, shall be to determine the point at which free expression by one individual or group crosses the line of tolerability and becomes an invasion of the rights of other individuals. This critical judgment must always be exercised in determining when verbal or physical expression can reasonably be considered harassment or disruption. Immediately upon receipt of a complaint that harassment or disruption is in process or imminent, thereby threatening to deprive an individual of their rights, the GCSB shall convene to consider the matter. In such a case, the board shall be authorized to deliver an injunction against the conduct in question. This warning shall contain an explicit description of the disruptive behavior and a reasonable time limit for compliance with the terms of the injunction. The injunction shall remain in effect until superseded by the decision of the VPSA. If the injunction is violated, the director of graduate studies (or designee) shall have the authority to impose immediate, temporary sanctions including, but not limited to, immediate suspension from the University.
2. **Revisions**
   The president has the authority to make changes to the Code of Non-Academic Conduct, the Honor Code, or related procedures. Changes should be proposed to the director of graduate studies. The director of graduate studies will consult with the members of the GCSB and with the Graduate Council about the proposed changes before forwarding recommendations to the president. If extensive changes appear warranted, the Graduate Council should consider establishment of a mechanism for broadly eliciting opinion and advice from the community.

3. **Judicial Records**
   Graduate student judicial records are confidential and are maintained separately from official academic records. Judicial records are maintained for six years after the academic year in which the violation was adjudicated. To inspect their record, a graduate student should make an appointment with the director of graduate student services. Graduate students will have access to all official records and correspondence in the file. Except as required by law, information from the file cannot be released without the graduate student’s permission.

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**University Health Services**

Basic health services are provided through the Davison Health Center at 327 High Street and are available to those Wesleyan graduate students who receive tuition remission and have submitted a completed health history form, including a record of mandated immunizations.

**SUBMISSION OF THE MEDICAL HISTORY FORM**

All graduate students are required to submit a completed medical history form and an up-to-date immunization record to the Davison Health Center before registration. A physical examination is not required, but it is recommended. The immunization form must be completed and signed by your doctor. Students will not be allowed to register until a completed form has been received. Graduate students with spouses and dependents should contact the Davison Health Center for additional information.

**IMMUNIZATION REQUIREMENTS**

All students who attend Wesleyan and were born after 1956 are required by Connecticut state law to show proof of immunization against, or immunity to, measles, mumps, rubella, varicella, and meningitis, whether or not they choose to use the Davison Health Center services. This information must be on file at the Davison Health Center. Contact the Davison Health Center for more information.

**THE DAVISON HEALTH CENTER**

The Davison Health Center is open when classes are in session, Monday through Thursday, 9 a.m. to 6 p.m.; Friday, 9 a.m. to 5 p.m.; and Saturday, 10 a.m. to 2 p.m. The Davison Health Center is open for limited medical care in the summer and is closed during academic breaks. The Davison Health Center is staffed by physicians, nurse practitioners, a physician associate, and nursing personnel who provide comprehensive primary care services for illness or injury to students. The staff provides an array of clinical and health education services including assessment and treatment of illnesses and injuries, health, wellness, disease prevention counseling, nutritional counseling, international travel counseling, immunizations, allergy injections, HIV testing and counseling, and referral to outside specialists.

The Davison Health Center provides basic laboratory testing and a dispensary for many prescriptions and over-the-counter medications. In addition, the staff works closely with the director of health education to promote health education and wellness programs on campus.

**APPOINTMENTS AND CLINICS**

Students are encouraged to make appointments; however, walk-in visits are available for urgent care. University Health Services has an after-hours on-call message center available during the academic year when residence halls are open. Please call (860) 685-2470. You will speak “live” with an after-hours call center representative who will deliver the message to the physician on call. The doctor will return your call. For more information, visit wesleyan.edu/healthservices.

**COUNSELING AND PSYCHOLOGICAL SERVICES**

Counseling and Psychological Services (CAPS) provides services to students by appointment through its staff of psychotherapists. Emergency coverage is also provided on a 24-hour-a-day, seven-day-a-week basis while the University is in session. For more information, visit wesleyan.edu/caps.

**INSURANCE**

The university-sponsored student health insurance policy provides basic insurance at a low premium for outpatient and inpatient care. A detailed summary of benefits can be obtained by visiting gallagherstudent.com or through the Davison Health Center. Additional comprehensive insurance through Cigna insurance is an available option to graduate students who receive a stipend. Go to cigna.com for more information.
Graduate Housing

Graduate students are not required to live in Wesleyan-owned housing. Wesleyan offers single, group, or family housing to its graduate students. Graduate students who are interested in living in Wesleyan-owned housing may apply online at wesleyan.edu/reslife. Allocations are on a first-come, first-served basis. Additional information on types of housing and housing rates may be found at wesleyan.edu/reslife.

FOR SINGLE STUDENTS

Group Housing. Each student has a furnished single bedroom in a wood-frame house; common areas are shared with one to five other graduate students.

One-Person Apartments. One-bedroom apartments are furnished or unfurnished, with a kitchen and living room. However, this type of housing is very limited; single students may be assigned to group housing.

Two-Person Apartments. Two-person apartments are furnished with two bedrooms, a kitchen, and a living room. There are a limited number of two-person apartments.

FOR STUDENTS WITH FAMILIES

(spouse/domestic partner and/or children must reside with you)

Family Housing. One-bedroom apartments will be offered to students with a spouse/domestic partner, while appropriately sized houses or apartments will be assigned to students with children.

Go to wesleyan.edu/reslife/grad_housing for additional graduate housing information and to access the online Graduate Housing Application.

Graduate Student Association

Graduate students at Wesleyan are automatically members of Wesleyan’s Graduate Student Association (GSA). A copy of the GSA Constitution outlining the purpose of the organization is available online and will be presented at the first GSA meeting. The GSA is made up of graduate students committed to maintaining and improving the quality of the graduate student experience.

In the past, GSA activities have included workshops on student tax liability and job interviewing skills, as well as a range of social events. All graduate students are welcome to become involved and are encouraged to attend the meetings, bring ideas, and listen to the issues that concern graduate students. Contact the GSA for a list of current officers and department representatives, or visit gsa.blogs.wesleyan.edu.
Astronomy

PROFESSORS: William Herbst; Edward C. Moran
ASSOCIATE PROFESSOR: Seth Redfield, CHAIR
ASSISTANT PROFESSOR: Meredith Hughes
RESEARCH ASSISTANT PROFESSOR: Roy E. Kilgard

The Astronomy Department offers graduate work leading to the degree of master of arts. The small size of the department permits individualized instruction and a close working relationship between students and faculty. Students are expected to become involved in the research programs of the department early in their graduate careers. They also are expected to select courses offered in the areas of observational and theoretical astronomy and astrophysics; a graduate student normally takes at least one 500-level astronomy course each semester. Additional courses in physics and mathematics are recommended according to individual student needs. Two years are usually necessary to complete requirements for the MA degree. However, the department also offers a five-year combined BA plus MA program for Wesleyan students. Eligible astronomy majors who complete their undergraduate requirements in four years can enroll for a fifth year and obtain a master's degree upon successful completion of one year of graduate coursework and a thesis. Primary research activities in the department include mapping the local interstellar medium, probing the atmospheres of extrasolar planets, observations of young stars and protoplanetary disks, investigations of x-ray binary star systems, and studies of the massive black holes that reside at the centers of galaxies.

COURSES
The student will normally enroll in at least one 500-level course in astronomy each semester. Depending on the year, the courses are ASTR521, ASTR522, ASTR524, ASTR531, ASTR532, or ASTR555. These courses are similar in content to the 200-level courses of the same name but with some supplementary materials and special assignments. These supplements are designed especially for graduate students. A minimum of 10 non-seminar credits, with grades of B- or better, is required for the MA degree. These include two credits for research leading to the thesis, which is also required. The student may expect to take four to six courses in physics, mathematics, or other sciences after consultation with the faculty of the department. In addition, students are required to participate in the department's seminars on research and pedagogy in astronomy, which are offered each semester.

PROGRESS AND QUALIFYING EXAMS
To be admitted to candidacy, a student must take a written and oral qualifying examination demonstrating satisfactory understanding of several areas of astronomy, fundamental physics, and mathematics. This examination should be taken after the first year of study. If performance in this examination is not satisfactory, the student will either be asked not to continue or to repeat the examination.

TEACHING
The emphasis in the program is on research and scholarly achievement, but graduate students are expected to improve communication skills by classroom teaching, formal interaction with undergraduate students, and presenting talks to the observatory staff and to the community.

RESEARCH
The research interests of the current faculty are:
- Dr. William Herbst—star and planet formation
- Dr. Ed Moran—extragalactic X-ray sources and supermassive black holes
- Dr. Seth Redfield—exoplanets and the interstellar medium
- Dr. Roy Kilgard—high-mass X-ray binary populations and statistical challenges in high energy astrophysics
- Dr. Meredith Hughes—planet formation

The department is well-equipped for instruction and research. Facilities include a network of MacOS X workstations, a CCD attached to a 24-inch reflector, a 20-inch refractor equipped for observational work, and the substantial astronomical library of the Van Vleck Observatory. Members of our faculty are frequently awarded observing time on world-class telescopes, including the Hubble Space Telescope, Chandra X-ray Observatory, and dozens of ground-based telescopes.

THESIS | DISSERTATION | DEFENSE
Each candidate is required to write a thesis on a piece of original and publishable research carried out under the supervision of a faculty member. A thesis plan, stating the purpose and goals of the research, observational and other materials required, and uncertainties and difficulties that may be encountered, must be submitted to the department for approval after admission to candidacy. The thesis, in near-final form, must be submitted to the faculty at least one week prior to the scheduled oral examination. In this examination, the student must defend his or her work and must demonstrate a high level of understanding in the research area. The oral examination may touch on any aspect of the student’s preparation. It is expected that the student will submit the results of his or her work to a research journal for publication.
CONCENTRATIONS

Planetary science is an emerging interdisciplinary field at the intersection of geology and astronomy with substantial contributions from physics, chemistry, and biology. The subject matter is planets, including those around other stars (exo-solar systems). The science questions include some of the most important of our times: How do planets (including Earth) form? How common are they in the universe? What is their range of properties and how do they evolve? Is there or was there ever life on other planets? The discovery of even microbial life beyond Earth would rank as one of the greatest human achievements of all time, and this quest lies squarely within the purview of planetary science.

INFORMATION

For additional information, please visit wesleyan.edu/astro/grad-program.

Biology

PROFESSORS: David Bodznick; Ann Campbell Burke, CHAIR; Barry Chernoff; Frederick M. Cohan; Stephen H. Devoto; Laura B. Grabel; John Kirn; Janice R. Naegele; Michael Singer; Sonia Sultan; Michael P. Weir

ASSOCIATE PROFESSOR: Gloster B. Aaron

ASSISTANT PROFESSORS: Joseph Coolon; Ruth Ineke Johnson; Joyce Ann Powzyk

The Biology Department offers graduate work leading to the degree of doctor of philosophy. The primary emphasis is on an intensive research experience culminating in a thesis, though the student will also be expected to acquire a broad knowledge of related biological fields through an individual program of courses, seminars, and readings. The low student-faculty ratio in the department ensures close contact between students and their dissertation advisors. Faculty and invited outside speakers offer regular research seminars, and graduate students present their work as it progresses at a biweekly departmental colloquium. Additional courses and lectures of interest offered by other departments are also available to biology students. All graduate students have the opportunity for some undergraduate teaching with faculty training and supervision. Teaching assistants are involved primarily in preparing materials for, and assisting in, laboratory courses and in evaluating student work. In the later years of the PhD program, some classroom teaching opportunities may be offered. Students are encouraged to spend a summer at the Marine Biological Lab in Woods Hole, Cold Spring Harbor labs, or another institution offering specialized graduate courses. Funds are available to support such coursework and to facilitate student travel to scientific conferences.

COURSES

The PhD is a research degree demanding rigorous scholarly training and creativity; the result is an original contribution to the candidate’s field. The student and a faculty committee will work out a program of study for the first two years at the time of matriculation. This program will take into account the student’s proposed field of interest and prior background in biology and related sciences. No specific courses are required, but, rather, a subject-matter requirement is used to ensure a broad background. Before taking the qualifying examination, all students must have at least one substantive course above the introductory level (at Wesleyan or elsewhere) in each of the following subject areas: genetics/genomics/bioinformatics; evolution/ecology; physiology/neurobiology/behavior; cell biology/developmental biology; and biochemistry/molecular biology. The adequacy of courses that have been taken at other institutions will be evaluated by the faculty committee through its meeting with the student. Students whose focus is bioinformatics may substitute two upper-level courses in computer science for one of these five areas. All graduate students must take a minimum of two advanced-level (300 or 500) courses within the Biology Department. At least one of these should be taken during the student’s first year. Departmental and interdepartmental seminars and journal clubs are included in the program, and additional individual reading in particular areas may also be required. First-year students are exposed to research in the department through usually two, occasionally three, one-semester lab rotations or research practica. Toward the end of each semester of the first year, each student will meet with an evaluation committee of the faculty to review progress and to discuss any modification of the proposed program.

Working with the First-Year Advisory Committee, graduate students design their own program of courses to complement and strengthen their previous background knowledge. Each student participates in one of the journal clubs, during which recent journal articles are presented and discussed. Three journal clubs meet weekly over lunch:

- Ecology/Evolution
- Cell/Development/Genetics
- Neuroscience/Behavior
PROGRESS AND QUALIFYING EXAMS
A qualifying examination will be taken before the end of the second year. The examination is designed to test the student’s knowledge of biology and ability to think critically. It includes a written research proposal, followed by an oral examination to discuss the proposal and evaluate the student’s breadth in biology. The examination will be administered by four faculty members of the department (or associated departments), chosen by the student and his or her research advisor. The examining committee will include the research advisor and one member whose research field is clearly outside the student’s area of special interest.

TEACHING
A minimum of three semesters as a teaching assistant is required.

RESEARCH
Graduate students start their research experience with two or more semester-long practica in laboratories. These are designed to provide complementing experiences to prepare students for their thesis research. Research projects are available in the following areas:

- Aaron Lab—epilepsy, the hippocampus, and the cortex
- Bodznick Lab—neuroethology
- Burke Lab—development and evolution
- Chernoff Lab—conservation, evolution, and genetics of fishes
- Cohan Lab—evolutionary genetics and speciation of bacteria
- Coolon Lab—ecological and evolutionary functional genomics
- Devoto Lab—muscle development in zebrafish
- Grabel Lab—embryonic stem cell neurogenesis
- Johnson Lab—regulation of cell movement during development
- Kirn Lab—developmental neurobiology of vocal learning in songbirds
- Naegele Lab—development of GABAergic interneurons and neural stem cell therapy
- Singer Lab—evolution and ecology of plant-animal interactions
- Sultan Lab—evolutionary ecology of phenotypic plasticity in plants
- Weir Lab—molecular genetics; bioinformatics

All graduate students present their research in biweekly seminars attended by all members of the department, to encourage students to become fluent and comfortable with their presentation skills.

THESIS | DISSERTATION | DEFENSE
The most important requirement is a PhD thesis, an original contribution to biology that merits publication. The candidate will receive advice and guidance from the thesis director but must demonstrate both originality and scientific competence. Normally, the candidate will choose a thesis topic during the second year of graduate work in consultation with appropriate faculty. A thesis committee of three members, chosen by the student and thesis advisor, will meet with the student and advisor at least twice a year to review progress. This committee determines when sufficient experimental work has been completed and must approve the final written document.

INFORMATION
For additional information, please visit wesleyan.edu/bio/graduate.

Chemistry

PROFESSORS: Michael A. Calter; Joseph L. Knee; David Ray Langley; Stewart E. Novick; Irina M. Russu
ASSOCIATE PROFESSORS: T. David Westmoreland, CHAIR; Brian Hale Northrop; Erika A. Taylor
ASSOCIATE PROFESSOR OF THE PRACTICE: Andrea Roberts
ASSISTANT PROFESSORS: Carlos Alberto Jimenez Hoyos; Michelle Louise Personick; Colin A. Smith

The Department of Chemistry offers a graduate program leading to the degree of doctor of philosophy. Currently, the program has approximately 40 graduate students and 12 faculty members. The small size ensures that each student knows every faculty member and has the opportunity to become well acquainted with several areas of chemistry. A customized program of study is set up for each student, whose progress is monitored by a three-member faculty advisory committee.

Emphasis within the program is on developing skills for chemical research, rather than on conforming to a uniform program of study. Course requirements, progress examinations, preparation and defense of research proposals, seminar presentation, and teaching assignments are all designed with this goal in mind.
An excellent weekly seminar program affords an opportunity for students to hear and meet informally with a variety of outstanding speakers. In addition, the Peter A. Leermakers Symposium has brought eminent chemists from Europe, Asia, South America, and throughout the United States to Wesleyan for a day of intensive examination of a particular subject. Past topics have included chemical insights into viruses, fullerenes, progenitors and sequels, molecular frontiers of AIDS research, extraterrestrial chemistry and biology, atmospheric chemistry and climate in a changing global environment, where chemistry meets art and archaeology, metals in medicine, the molecular basis of materials science, challenges to chemistry from other sciences, green energy and biofuel technology, and better chemistry through quantum mechanics.

COURSES
Course requirements are intended to achieve two basic goals. (1) Acquisition of background knowledge. A central core of material is basic for all well-trained chemists. Therefore, graduate students are initially expected to develop or demonstrate knowledge of an appropriate one-semester course in each of the areas of organic chemistry, inorganic chemistry, biochemistry, physical chemistry, and quantum chemistry. (2) Continued scholarly growth. Graduate students are expected to take one course or its equivalent every semester. This may be a regular advanced course in chemistry or a related discipline, a seminar, or a tutorial designed to meet the special needs of an individual student.

PROGRESS AND QUALIFYING EXAMS
Progress examinations are given multiple times each academic year. Based on articles in the current literature, these examinations are designed to encourage graduate students to keep up with the latest developments in chemistry. In addition, they are a valuable tool for monitoring the expected steady growth of a student’s ability to read the chemical literature critically, as well as identifying any areas where he or she is deficient. Students are required to pass a specified number of exams, which they usually accomplish in two to three years.

TEACHING
Teaching skills are honed and assisting duties are given to each student as a means of developing communication skills. As these develop, more responsible and demanding tasks will be assigned whenever possible.

A 50-minute seminar talk is expected of each student once a year. For first-year graduate students, this seminar will be scheduled in the second semester. In addition, there will be a number of shorter, less formal talks in classes, research group meetings, and special-interest discussion groups, all of which will contribute to a student’s ability to work up, organize, and present a scientific topic.

RESEARCH
After taking three research rotations in different laboratories through the first semester, students are usually then able to choose a research mentor.

Proposal writing is one of the most important parts of the entire graduate program in chemistry. Writing scientific proposals teaches evaluation of the literature, integration of knowledge from several areas, formulation of scientific questions, design of a research project to answer those questions, scientific writing, and the defense of a project proposal. Two proposals are required: one during the second year related to the student’s research and a second, in the fourth year, on a separate topic.

THESIS | DISSERTATION | DEFENSE
The thesis research and dissertation—an original contribution worthy of publication—is the single most important requirement. Finally, the candidate defends the thesis before his/her committee and then presents a final seminar to the department.

CONCENTRATIONS

CHEMICAL PHYSICS
GUIDING COMMITTEE: Lutz Hüwel, Physics; Joseph Knee, Chemistry; Stewart E. Novick, Chemistry; Brian Stewart, Physics

Beginning students in the chemistry or physics graduate programs may petition their department for admission to the interdisciplinary program in chemical physics. The philosophy underlying the program is that the solution to contemporary problems must increasingly be sought not within a single traditional specialty but from the application of different disciplines to particular problems. Students in the program will pursue a course of study and research that will familiarize them with both the Physics and Chemistry departments and, in particular, with those areas of overlapping interest that we broadly categorize as chemical physics.

Requirements for the Degree of Doctor of Philosophy. Students entering the program will choose an interdepartmental committee to oversee their progress toward the PhD degree. Students will still receive a PhD in either chemistry or physics. Chemical physics students will be expected to take courses from both departments. The core of the program of courses consists of quantum chemistry (offered by the Chemistry Department), quantum mechanics (offered by either department), electrodynamics (offered by the Physics Department), statistical mechanics (either department), and mathematical physics (Physics Department). For details of the course offerings, see the course listings under chemistry and physics.

Seminars. Students will participate in the weekly chemical physics seminar series and will be expected to present at least one talk per year.
Examinations. Students will follow the examination policy of their sponsoring department. Those chemical physics students pursuing a PhD in chemistry will take periodic progress exams based on the current literature, and in their second year they will take an oral qualifying exam that includes a short written proposal of their future PhD research. A second proposal, external to their research, is submitted in the fourth year. In addition, there is a final oral PhD thesis defense. For details, see the requirements for the PhD in chemistry. For those chemical physics students pursuing a PhD in physics, there are three formal examinations: a written examination at an advanced undergraduate level (taken in the third semester), an oral PhD candidacy examination (taken no later than the fifth semester), and a final oral PhD thesis defense. For details, see the requirements for the PhD in physics.

Research. Students in chemical physics may do research under the direction of any member of either department. To aid the student in this selection and to sample the flavor of research activities in both departments, students will participate briefly in the research of each department. During the first year, students will rotate among as many as two research groups from each department, spending between four and six weeks in each group. It is anticipated that a student will be able to make a formal choice of a research advisor by the end of the first academic year at Wesleyan.

Molecular Biophysics

GUIDING COMMITTEE: David L. Beveridge, Chemistry; Ishita Mukerji, Molecular Biology and Biochemistry

The Chemistry Department participates in an interdisciplinary program of graduate study in molecular biophysics with the departments of Molecular Biology and Biochemistry (MB&B), Biology, and Physics. The program provides a course of study and research that overlaps the disciplinary boundaries of chemistry, physics, biology, and molecular biology and is designed for students with an undergraduate background in any one of these areas. Students in the program are enrolled in one of the participating departments and fulfill canonical requirements of the department. In addition, they take advanced courses in molecular biophysics and pursue dissertation research with one of the faculty in the program. Centerpieces of the program are the weekly interdepartmental journal club in molecular biophysics and an annual off-campus research retreat. Both activities bring together students, research associates, and faculty from all participating departments and foster interdisciplinary collaborative projects.

The molecular biophysics program receives special support from the National Institutes of Health (NIH) in the form of a training grant. The program is affiliated with interest groups such as the New York Structural Biology (NYSB) and the New York Bioinformatics and Computational Biology (NYBCB) groups. All students are encouraged to join and attend national meetings of the Biophysical Society.

Students interested in this program apply for admission to the Chemistry Department or to the other two participating departments. Application forms for these departments are available at wesleyan.edu/chem.

INFORMATION
For additional information, please visit the department website at wesleyan.edu/chem.

Earth and Environmental Sciences

PROFESSORS: Barry Chernoff; Martha S. Gilmore; Suzanne B. O’Connell; Dana Royer, CHAIR; Johan C. Varekamp
ASSOCIATE PROFESSORS: Timothy C.W. Ku; Phillip G. Resor
ASSISTANT PROFESSOR: James P. Greenwood
ASSISTANT PROFESSOR OF THE PRACTICE: Kim Diver
RESEARCH PROFESSOR: Ellen Thomas

The Earth and Environmental Sciences Department offers a program leading to the degree of master of arts in earth and environmental sciences. This program is designed for students who desire further training prior to initiation of a doctoral program at another university or for whom the master’s degree will be the terminal degree. Graduate students are offered a unique opportunity for accelerated and personal instruction in a small department setting, with strengths in geology, volcanology, ocean sciences, planetary science, and environmental science. All admitted students are offered a full tuition waiver, stipend, and benefits for this two-year program.

COURSES
Students who possess the equivalent of a Wesleyan E&ES BA degree are required to take six upper-level course credits (of which at least four must be in E&ES) and two MA thesis research credits (E&ES549 and E&ES550). In addition, students are required to take three years (six semesters) of courses from a minimum of two of the following disciplines: mathematics, chemistry, physics, and biology. Students who do not possess the equivalent of a Wesleyan E&ES BA degree must complete or have completed 11 upper-level courses in the sciences or mathematics, and at least five of these must be E&ES courses. All students are expected to enroll in E&ES557 each semester it is offered. A student’s thesis committee will decide the required coursework for the MA.
All full-time graduate students are expected to complete all courses with a grade of B- or better. Failure to achieve these minimal expectations incurs automatic dismissal from the program.

PROGRESS AND QUALIFYING EXAMS

Thesis Proposal and Thesis Committee. Upon admission to the program, the student will meet with the E&ES Graduate Program Committee to discuss the general requirements and goals of graduate study. Students should select an advisor, thesis topic, and thesis committee by the end of the first semester. After students have made a choice of faculty advisor and thesis committee, they must, in cooperation with the advisor, write a one- to two-page thesis proposal, in which they provide an outline of the proposed research. The thesis committee will read the proposal and discuss it with the student before acceptance of the research project. At the beginning of each semester, and at the beginning of the summer, each graduate student will be asked to prepare a written summary (two to three pages) of their progress and accomplishments and meet with their thesis committee. This summary will be reviewed by the thesis committee to discuss and evaluate the student’s progress; failure to make adequate progress can be grounds for dismissal from the program. The discussion of the committee will be summarized by the student’s advisor and relayed to the student in writing.

Qualifying Exam. Competence in general knowledge about the earth and environmental sciences will be assessed by a written examination taken after the end of the second semester. The thesis advisor, in concert with the E&ES faculty, will construct several questions. The student will then have three days to answer these questions. The student can use any written source for guidance ("open book" format), and each answer should not exceed one page (single-spaced). The committee and any interested E&ES faculty will then meet with the student to have a 30-minute conversation about the questions and answers. Based on the outcome of the exam, the committee may suggest coursework or independent study on particular topics.

TEACHING

Graduate students are expected to fully participate in the scholarly activities of the department, including teaching opportunities, attending departmental seminars, and presenting their own work to the Wesleyan and scientific communities.

THESIS | DISSERTATION | DEFENSE

Thesis and oral examination. The culmination of the master’s program is the completion and acceptance of a thesis and its successful oral defense. The format of the written work is to be discussed and agreed upon with the student’s advisor and committee. The advisor and thesis committee, in consultation with the student, will agree upon the schedule of the defense. All members of the thesis committee must have read and must approve, in writing, a complete thesis before a defense can be scheduled. Practically, this requires that a thesis draft, already vetted by the advisor, be made available to the remainder of the thesis committee at least one month before any proposed defense date. Once the committee has agreed that the thesis is ready to defend, the form for scheduling the defense can be obtained from the E&ES Department. The student is responsible for following all University requirements for the format and scheduling of the thesis. The oral examination will focus on the thesis.

CONCENTRATIONS

Planetary science is an emerging interdisciplinary field at the intersection of geology and astronomy with substantial contributions from physics, chemistry, and biology. The subject matter is planets, including those around other stars (exosolar systems). The science questions include the most important of our times: How do planets (including Earth) form? How common are they in the universe? What is their range of properties and how do they evolve? Is there or was there ever life on other planets? Certainly, the discovery of even microbial life beyond Earth would rank as one of the greatest human achievements of all time, and this quest lies squarely within the purview of planetary science.

Program of Study. MA or BA/MA students in the natural sciences and mathematics may elect a course of study resulting in the planetary science concentration. The concentration is designed to engage students in the research results, skills, and methods of planetary science. The planetary science concentration requires:

1. Completion of a minimum of four courses from the list below with a grade of B- or better. At least one of these courses must be from a department outside the student’s home department.

2. Students are also required to attend the Planetary Science Seminar, ASTR/E&ES555.

3. All students must complete a written thesis on a topic relevant to planetary science. A member of the student’s thesis committee will be from the planetary science concentration committee. The planetary science concentration will be designated on the student’s transcript upon the successful completion of this program of study and MA requirements of the student’s home department. For more information, please contact the any of the members of the planetary science concentration committee or the graduate school.

PLANETARY SCIENCE CONCENTRATION COMMITTEE: Martha Gilmore, Earth and Environmental Sciences; James Greenwood, Earth and Environmental Sciences; William Herbst, Astronomy; Meredith Hughes, Astronomy; Seth Redfield, Astronomy
1. Planetary Science Courses — Select at least 4 of the following (one from outside the home department):

- ASTR524 Exoplanets: Formation, Detection, and Characterization
- ASTR531 Stellar Structure and Evolution
- ASTR532 Galaxies, Quasars, and Cosmology
- BIOL214 Evolution
- BIOL231 Microbiology
- CHEM361 Advanced Inorganic Chemistry
- CHEM383 Biochemistry
- E&ES513 Petrogenesis of Igneous and Metamorphic Rocks
- E&ES517 Volcanology
- E&ES519 Meteorites and Cosmochemistry
- E&ES571 Planetary Evolution
- E&ES575 Modeling the Earth and Environment
- E&ES580 Introduction to GIS
- PHYS213 Waves and Oscillations

Math and Computer Science courses as appropriate in consultation with advisor

2. Seminar — offered each semester; take a minimum of three semesters

- ASTR/E&ES555 PLANETARY Science Seminar (offered each semester; take a minimum of three semesters)

3. Thesis — The MA degree program requires a thesis that demonstrates the student’s ability to perform original, independent research in planetary science. The specific guidelines for the thesis are those of the student’s home department.

INFORMATION
For additional information, please visit the department website wesleyan.edu/ees/graduate.

Mathematics and Computer Science

PROFESSORS OF MATHEMATICS: Wai Kiu Chan; Karen L. Collins; Adam Fieldsteel, CHAIR; Mark A. Hovey; Philip H. Scowcroft
ASSOCIATE PROFESSORS OF MATHEMATICS: Constance Leidy; David Pollack; Christopher Rasmussen
ASSISTANT PROFESSORS OF MATHEMATICS: Ilesanmi Adeboye; David A. Constantine; Cameron Donnay Hill; Han Li; Felipe A. Ramirez

PROFESSORS OF COMPUTER SCIENCE: Daniel Krizanc, VICE CHAIR; James Lipton
ASSOCIATE PROFESSOR OF COMPUTER SCIENCE: Norman Danner
ASSISTANT PROFESSORS OF COMPUTER SCIENCE: Dan Licata; Victoria Ursula Manfredi; Saray Shai

DOCTOR OF PHILOSOPHY IN MATHEMATICS

The doctor of philosophy degree demands breadth of knowledge, an intense specialization in one field, a substantial original contribution to the field of specialization, and a high degree of expository skill.

Five years are usually needed to complete all requirements for the PhD degree, and two years of residence are required. It is not necessary to obtain the MA degree en route to the PhD degree. Students may choose to obtain the MA in computer science and the PhD in mathematics. Any program leading to the PhD degree must be planned in consultation with the departmental Graduate Education Committee.

Among possible fields of specialization for PhD candidates are algebraic geometry, algebraic topology, analysis of algorithms, arithmetic geometry, categorical algebra, combinatorics, complex analysis, computational logic, data mining, elliptic curves, ergodic theory, fundamental groups, Galois theory, geometric analysis, graph theory, homological algebra, Kleinian groups and discrete groups, knot theory, logic programming, mathematical physics, model theory, model-theoretic algebra, number theory, operator algebras, probability theory, proof theory, topological dynamics, and topological groups.

COURSES
At least 16 one-semester courses are required for the PhD degree. Several of the courses are to be in the student’s field of specialization, but at least three one-semester courses are to be taken in each of the three areas: algebra, analysis, and topology. First-year students are expected to take the three two-semester sequences in these areas. However, students interested in computer science may replace coursework in one of these areas with coursework in computer science, with the permission of the departmental Graduate Education Committee. One of the 16 courses must be in the area of logic or discrete mathematics, as construed by the departmental Graduate Education Committee.

LANGUAGE REQUIREMENT
Students must pass reading examinations in either French, German, or Russian. It is strongly recommended that PhD candidates have or acquire a knowledge sufficient for reading the mathematical literature in all three of these languages. Knowledge of one of these three languages is required.

PROGRESS AND QUALIFYING EXAMS

General Preliminary Examinations. The general preliminary examinations occur in the summer after the candidate’s first year of graduate study and cover algebra, analysis, and topology (or computer science, in the case of students including this option among their three first-year subjects).
Special Preliminary Examination. For a graduate student to become an official PhD candidate as recognized by the department, the student has to pass the Special Preliminary Examination, an oral examination that must be passed by the end of the student’s third year of graduate work. The student’s Examination Committee determines the subject matter content of the Special Preliminary Examination. This committee is chaired by the student’s dissertation advisor and must include at least two additional faculty members of the department. The Special Preliminary Examination will be based primarily, but perhaps not exclusively, on the student’s field or specialization. Specific details of the form and content of the examination shall be determined by the Examination Committee at the time the subject matter content is discussed.

TEACHING
After passing the preliminary examinations, most PhD candidates teach one course per year, typically of 20 students, supervised by senior faculty.

THESIS | DISSERTATION | DEFENSE
Dissertation. The dissertation, to be written by the PhD candidate under the counsel and encouragement of the thesis advisor, must contain a substantial original contribution to the field of specialization of the candidate and must meet standards of quality as exemplified by the current research journals in mathematics.

Selection of Dissertation Advisor. A graduate student should select a dissertation advisor by the end of the student’s second year of graduate work.

Defense of Dissertation. The final examination is an oral presentation of the dissertation in which the candidate is to exhibit an expert command of the thesis and related topics and a high degree of expository skill.

MASTER OF ARTS
The department offers the MA in mathematics and also in computer science. The requirements for the master of arts degree are designed to ensure a basic knowledge and the capacity for sustained, independent scholarly study. At least three semesters of full-time study beyond an undergraduate degree are usually needed to complete all requirements for the MA degree. Any program leading to the MA degree must be planned in consultation with the departmental Graduate Education Committee.

COURSES
Six one-semester graduate courses in addition to the research units MATH549 and MATH550 or COMP549 and COMP550 are required for the MA degree. The choice of courses will be made in consultation with the faculty advisor and the departmental Graduate Education Committee.

THESIS | DISSERTATION | DEFENSE
Thesis. The thesis is a written report of a topic requiring an independent search and study of the mathematical literature. Performance is judged largely on scholarly organization of existing knowledge and on expository skill, but some indications of original insight are expected.

Defense. In the final examination, an oral presentation of the MA thesis, the candidate is to exhibit an expert command of the chosen specialty and a high degree of expository skill. The oral presentation may include an oral exam on the material in the first-year courses. A faculty committee evaluates the candidate’s performance.

INFORMATION
For additional information, please visit the department website at wesleyan.edu/mathcs/graduate.

Molecular Biology and Biochemistry

PROFESSORS: Manju Hingorani, CHAIR; Scott G. Holmes; Ishita Mukerji; Donald B. Oliver
ASSOCIATE PROFESSORS: Robert P. Lane; Amy MacQueen; Michael A. McAlear; Rich Olson
ASSOCIATE PROFESSOR OF THE PRACTICE: Michelle Aaron Murolo

The Molecular Biology and Biochemistry (MB&B) Department supports a graduate program with emphasis in molecular genetics, molecular biology, biochemistry, and molecular biophysics. The MB&B graduate program is designed to lead to the degree of doctor of philosophy. A master of arts degree is awarded only under special circumstances. The department currently has 20 graduate students, and the graduate program is an integral part of the departmental offerings. Graduate students serve as teaching assistants in undergraduate courses, generally during their first two years. The emphasis of the program is on an intensive research experience culminating in a dissertation. The program of study also includes a series of courses covering the major areas of molecular biology, biochemistry, and biophysics; journal clubs in which current research is discussed in an informal setting; practica designed to introduce first-year students to the research interests of the faculty; and several seminar series in which either graduate students or distinguished outside speakers participate. The low student-faculty ratio (2.5:1) allows programs to be individually designed and ensures close contact between the student and the faculty.
COURSES
Ideally, incoming students will have completed courses in general biology, cell and molecular biology, genetics, biochemistry, general chemistry, organic chemistry, physical chemistry, and calculus. Deficiencies in any of these areas would normally be made up in the first year. A core curriculum of graduate courses in the following areas is given on a two-year cycle: nucleic acid structure and its regulation, regulation of gene expression, regulation of chromosome dynamics, structural mechanisms and energetics of protein-nucleic-acid interactions, protein structure and folding, protein trafficking in cells, physical techniques, molecular genetics, the cell cycle, biological spectroscopy, bioinformatics and functional genomics, and molecular, biochemical, and cellular bases of cancer and other human diseases. Additional graduate course electives are also available. Within this general framework, an individual program of study tailored to fit the student’s background and interests is designed in consultation with the graduate committee and the student’s advisor.

PROGRESS AND QUALIFYING EXAMS
The criteria for admission to candidacy for the PhD will be performance in courses, aptitude for research, a written qualifying examination at the end of the third semester, and the oral defense of an original research proposal by the middle of the fourth semester.

TEACHING
Normally, three to four semesters of teaching are required.

RESEARCH
Control of DNA replication; mechanism of protein secretion; global regulations of ribosomal biogenesis in the yeast S. cerevisiae; mechanisms of DNA replication and repair; protein-protein and protein-nucleic-acid interactions; the structural dynamics of nucleic acids and proteins; chromosome structure and gene expression; UV resonance Raman spectroscopy of biological macromolecules; biological assembly mechanisms; protein fiber formation in disease; enzyme mechanisms; the olfactory system and new frontiers in genome research; and elucidation of membrane protein function by x-ray crystallography.

CONCENTRATIONS
The Chemistry Department and the Molecular Biology and Biochemistry Department offer an interdepartmental certificate in molecular biophysics supported by a training grant from the National Institutes of Health. This program is designed to prepare students for research and careers that combine interests in the physical and life sciences. Interested students are encouraged to consult David Beveridge or Irina Russu in the Chemistry Department or Manju Hingorani or Ishita Mukerji in the MB&B Department.

INFORMATION
For additional information, please visit the department website at wesleyan.edu/mbb/grad_studies.

Music

PROFESSORS: Neely Bruce; Eric Charry; Jay Clinton Hoggard; Ronald J. Kuivila; Prof. Sumarsam
ASSOCIATE PROFESSORS: Jane Alden; Paula Matthusen, CHAIR; Su Zheng
ASSISTANT PROFESSORS: Roger Mathew Grant; Tyshawn Sorey
ADJUNCT ASSOCIATE PROFESSOR: B. Balasubramaniyan
ADJUNCT ASSISTANT PROFESSORS: David Paul Nelson; Nadya Potemkina
ARTISTS-IN-RESIDENCE: Ronald Ebrecht; I. Harjito

The World Music Program offers degrees at both the master’s and doctoral levels. The MA in music has concentrations in scholarship (ethnomusicology/musicology), experimental music/composition, and performance. The PhD is in ethnomusicology only. Many musics are represented by faculty members through teaching and performing African American, Indonesian, West African, the Caribbean, East Asian, South Indian (Karnatak), Euro-American, and experimental music, and there are many opportunities for individual and ensemble study/performance.

COURSES
Degree of Master of Arts. A total of 11 credits of coursework. Students are required to take MUSC510, four graduate seminars other than MUSC510 (two in the area of concentration), two performance courses, a course outside the department, a two-semester thesis tutorial (MUSC591/MUSC592), and four semesters of MUSC530.

Degree of Doctor of Philosophy. Satisfactory completion of courses totaling at least 12 credits. Students are required to take three core seminars (MUSC519, 521, 520/522), three elective graduate-level seminars other than the core seminars (two of which may be satisfied with appropriate courses already taken at the master’s level), two credits of performance (in different musics), one course outside the department, two credits of thesis tutorial (MUSC591/592), and four semesters of (MUSC530).
**LANGUAGE REQUIREMENT**
One foreign language is required for the MA. All incoming students are required to take the language examination administered by the department at the beginning of their first term.

Two foreign languages are required for the PhD: one field language and one research language. All incoming students are required to take the language examination administered by the department at the beginning of their first term.

**PROGRESS AND QUALIFYING EXAMS**
*Qualification for the Degree of Doctor of Philosophy.* At the conclusion of the second year in residence, students take a qualifying examination consisting of a set of essays and a follow-up oral examination.

**THESIS | DISSERTATION | DEFENSE**

**Thesis and Defense.** The thesis must constitute an archival product displaying mastery of and an original contribution to the understanding of an aspect of world music. The MA thesis may follow various formats and modes of musical investigation, but performance per se does not constitute a thesis without substantial written ancillary materials. Work such as bibliographies, translations, and journals do not normally constitute theses. After completing all department requirements and acceptance of the thesis by the committee, the candidate is scheduled for an oral thesis defense administered by the committee.

**Dissertation and Defense.** The dissertation must constitute an archival product displaying mastery of and an original contribution to the understanding of an aspect of world music. After completing all department requirements and acceptance of the dissertation by the committee, the candidate is scheduled for an oral dissertation defense administered by the committee.

**INFORMATION**
For additional information, please visit the department website at [wesleyan.edu/music/graduate](http://wesleyan.edu/music/graduate).

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**Physics**

**PROFESSORS:** Reinhold Blümel; Fred M. Ellis, Lutz Hüwel; Tsampikos Kottos; Thomas J. Morgan; Francis W. Starr; Brian A. Stewart; Greg A. Voth, *CHAIR*

**ASSISTANT PROFESSORS:** Candice Marie Etson; Christina Marie Othon; Meng-ju Renee Sher

**ASSOCIATE PROFESSOR OF THE PRACTICE:** Lynn Andrea Westling

The Physics Department offers graduate work leading to the PhD and MA. The small size of the program (12 full-time faculty and about 15 graduate students) permits the design of individual programs of study and allows the development of a close working collegiality among students and faculty. The department wants its students to do physics right from the start, rather than spend one or two years solely on coursework before getting into research. To this end, graduate students are expected to join in the research activities of the department upon arrival. An interdisciplinary program in chemical physics is available to interested students. For more details, see the listing for chemical physics in the Chemistry Department.

Requirements for the degree of Master of Arts, a minimum of eight credits with grades of B- or better is required for the MA degree. These may include three credits in research leading to the thesis, which is also required. Course selection is flexible and is done in consultation with the faculty advisor and with the members of the student’s committee.

Requirements for the PhD degree, in addition, students must have taken (or placed out of) five PhD-level graduate core courses and five advanced topics courses. Students must have demonstrated proficiency in the main subject areas of physics by the time they have completed the program. Each student, after passing the first examination (see below), selects an advisory committee of three faculty members. The committee assists the student to design a program of study, monitors progress, and makes annual recommendations to the department regarding the student’s continuation in the program. The advisory committee also administers subsequent examinations, as described below.

Each student who has passed the candidacy examination (described below) is required to present an annual informal talk on his or her thesis work in a departmental seminar.

**COURSES**
In consultation with the advisory committee (or, for incoming students, with the graduate advisor), each student plans a program of study that will ensure an adequate grasp of the main subject areas of physics, e.g., quantum theory, including atomic and condensed-matter physics, electromagnetism and optics, classical dynamics, and thermal and statistical physics. While these would normally be graduate-level (*500*) physics courses, under special circumstances, either a lower-level physics course, a course in a related discipline, or a tutorial may be chosen.
PROGRESS AND QUALIFYING EXAMS

Three formal examinations serve to define the various stages of the student’s progress to the degree. The first, usually taken at the beginning of the second year, is a written examination on material at an advanced undergraduate level. Advancement to the second stage of candidacy depends on passing this examination as well as on coursework and demonstrated research potential. Usually during the second semester of the second year, each student takes the PhD candidacy examination, which consists of an oral presentation before the student’s advisory committee, describing and defending a specific research proposal. (The proposal might, but need not, grow out of previous research or be adopted by the student as a thesis topic.) The committee then recommends to the department whether to admit the student to the final stage of PhD candidacy or whether to advise the student to seek an MA degree.

TEACHING

Although the emphasis in the program is on independent research and scholarly achievement, graduate students are expected to improve their skills in teaching and other forms of oral communication. Each student is given the opportunity for some undergraduate teaching under direct faculty supervision. While this usually consists of participation in teaching undergraduate laboratories, direct classroom teaching experience is also possible for more advanced and qualified students.

RESEARCH

Current experimental research areas are concentrated in atomic/molecular physics and condensed matter physics. Current interests include Rydberg states in strong fields, molecular collisions, photo-ionization, laser-produced plasmas, quantum fluids, granular and turbulent fluid flows, lipid membranes and hydration dynamics, single-molecule biophysics, and optoelectronics of renewable energy materials.

Current theoretical and computational research areas include nonlinear dynamics, quantum chaos, properties of nanostructures, soft condensed matter, and wave transport in complex media.

THESIS | DISSERTATION | DEFENSE

Each candidate is required to write a dissertation on original and significant research, either experimental or theoretical, supervised by a member of the faculty. The work must be defended in a final oral examination administered by the advisory committee. This oral examination covers the dissertation and related topics and is open to all members of the Wesleyan community. It is expected that the candidate will submit the results of his or her work to a scholarly journal for publication.

INFORMATION

For additional information, please visit the department website at wesleyan.edu/physics/graduate.