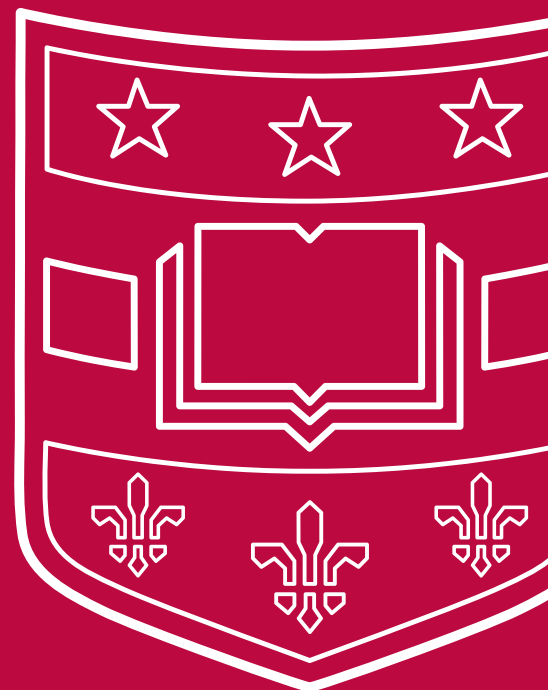


# 2021–22 Bulletin

The Graduate School

 Washington University in St. Louis



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## About This Bulletin

The graduate and professional *Bulletins* are the catalogs of programs, degree requirements, courses that may be offered and course descriptions, pertinent university policies and faculty of the following schools of Washington University in St. Louis: Architecture & Urban Design; Art; Arts & Sciences; Business; Engineering; Law; Medicine; and Social Work & Public Health.

The *University College Bulletin* is the catalog of University College, the professional and continuing education division of Arts & Sciences at Washington University in St. Louis. The catalog includes programs, degree requirements, course descriptions and pertinent university policies for students earning a degree through University College.

The *2021-22 Bulletin* is entirely online but may be downloaded in PDF format for printing. Individual pages as well as information from individual tabs may be downloaded in PDF format using the PDF icon in the top right corner of each page. To download the full PDF, please choose from the following:

- Architecture & Urban Design Bulletin (PDF) ([http://bulletin.wustl.edu/grad/Bulletin\\_2021-22\\_Grad\\_Arch.pdf](http://bulletin.wustl.edu/grad/Bulletin_2021-22_Grad_Arch.pdf))
- Art Bulletin (PDF) ([http://bulletin.wustl.edu/grad/Bulletin\\_2021-22\\_Grad\\_Art.pdf](http://bulletin.wustl.edu/grad/Bulletin_2021-22_Grad_Art.pdf))
- Arts & Sciences Bulletin (PDF) ([http://bulletin.wustl.edu/grad/Bulletin\\_2021-22\\_Grad\\_School.pdf](http://bulletin.wustl.edu/grad/Bulletin_2021-22_Grad_School.pdf))
- Business Bulletin (PDF) ([http://bulletin.wustl.edu/grad/Bulletin\\_2021-22\\_Grad\\_Business.pdf](http://bulletin.wustl.edu/grad/Bulletin_2021-22_Grad_Business.pdf))
- Engineering Bulletin (PDF) ([http://bulletin.wustl.edu/grad/Bulletin\\_2021-22\\_Grad\\_Engineering.pdf](http://bulletin.wustl.edu/grad/Bulletin_2021-22_Grad_Engineering.pdf))
- Law Bulletin (PDF) ([http://bulletin.wustl.edu/grad/Bulletin\\_2021-22\\_Law.pdf](http://bulletin.wustl.edu/grad/Bulletin_2021-22_Law.pdf))
- Medicine Bulletin (PDF) ([http://bulletin.wustl.edu/grad/Bulletin\\_2021-22\\_Medicine.pdf](http://bulletin.wustl.edu/grad/Bulletin_2021-22_Medicine.pdf))
- Social Work & Public Health Bulletin (PDF) ([http://bulletin.wustl.edu/grad/Bulletin\\_2021-22\\_Brown.pdf](http://bulletin.wustl.edu/grad/Bulletin_2021-22_Brown.pdf))
- University College Bulletin (undergraduate & graduate) (PDF) ([http://bulletin.wustl.edu/grad/Bulletin\\_2021-22\\_UCollege.pdf](http://bulletin.wustl.edu/grad/Bulletin_2021-22_UCollege.pdf))

The degree requirements and policies in the *2021-22 Bulletin* apply to students entering Washington University during the 2021-22 academic year.

Courses at Washington University are coded by department and include a three- or four-digit number that generally means the following, although students should check with the school or department offering the courses to be certain:

- 100 to 199 are primarily for first-year students;
- 200 to 299 are primarily for sophomores;
- 300 to 399 are primarily for juniors;
- 400 to 499 are primarily for juniors and seniors, although certain courses may carry graduate credit; and
- 500 and above are offered to graduate students and to juniors and seniors who have met all stated requirements. (If there are no stated requirements, juniors and seniors should obtain permission of the instructor.)

*For example:* Course L07 105 is an introductory course offered by the Department of Chemistry (L07).

The presence of a course in this Bulletin signifies that it is part of the curriculum offered and may be scheduled for registration. Enrollment requirements are determined by term.

Every effort is made to ensure that the information, applicable policies and other materials presented in the *Bulletin* are accurate and correct as of the date of publication (October 14, 2021). Washington University reserves the right to make changes at any time without prior notice. Therefore, the electronic version of the *Bulletin* may change from time to time without notice. The governing document at any given time is the then-current version of the *Bulletin*, as published online, and then-currently applicable policies and information are those contained in that *Bulletin*.

For the most current information about registration and available courses, visit WebSTAC (<https://acadinfo.wustl.edu>) and Course Listings (<https://courses.wustl.edu/Semester/Listing.aspx>), respectively. Please email the Bulletin editor, Jennifer Gann, ([jennifer.gann@wustl.edu](mailto:jennifer.gann@wustl.edu)) with any questions concerning the *Bulletin*.

# About Washington University in St. Louis

## Who We Are Today

Washington University in St. Louis — a medium-sized, independent university — is dedicated to challenging its faculty and students alike to seek new knowledge and greater understanding of an ever-changing, multicultural world. The university is counted among the world's leaders in teaching and research, and it draws students from all 50 states, the District of Columbia, Guam, Puerto Rico and the Virgin Islands. Students and faculty come from more than 100 countries around the world.

The university offers more than 250 programs and 5,500 courses leading to associate, bachelor's, master's, and doctoral degrees in a broad spectrum of traditional and interdisciplinary fields, with additional opportunities for minor concentrations and individualized programs. For more information about the university, please visit the University Facts (<http://wustl.edu/about/facts/>) page of our website.

## Enrollment by School

For enrollment information (<https://wustl.edu/about/university-facts/#students>), please visit the University Facts page of our website.

## Committed to Our Students: Mission Statement

Washington University's mission is to discover and disseminate knowledge and to protect the freedom of inquiry through research, teaching and learning.

Washington University creates an environment that encourages and supports an ethos of wide-ranging exploration. Washington University's faculty and staff strive to enhance the lives and livelihoods of students, of the people of the greater St. Louis community, of the country and of the world.

Our goals are as follows:

- to welcome students, faculty and staff from all backgrounds to create an inclusive community that is welcoming, nurturing and intellectually rigorous;
- to foster excellence in our teaching, research, scholarship and service;
- to prepare students with the attitudes, skills and habits of lifelong learning and leadership, thereby enabling them to be productive members of a global society; and
- to be an institution that excels by its accomplishments in our home community of St. Louis as well as in the nation and the world.

To this end, we intend to do the following:

- to judge ourselves by the most exacting standards;
- to attract people of great ability from diverse backgrounds;
- to encourage faculty and students to be bold, independent and creative thinkers;
- to provide an exemplary, respectful and responsive environment for living, teaching, learning and working for present and future generations; and
- to focus on meaningful, measurable results for all of our endeavors.

## Trustees & Administration

### Board of Trustees

Please visit the Board of Trustees website (<http://boardoftrustees.wustl.edu>) for more information.

### University Administration

In 1871, Washington University co-founder and then-Chancellor William Greenleaf Eliot sought a gift from Hudson E. Bridge, charter member of the university's Board of Directors, to endow the chancellorship. Soon it was renamed the "Hudson E. Bridge Chancellorship."

Led by the chancellor, the officers of the university administration (<http://wustl.edu/about/leadership/>) are detailed on the university website.

## Academic Calendar

The academic calendar of Washington University in St. Louis is designed to provide an optimal amount of classroom instruction and examination within a manageable time frame, facilitating our educational mission to promote learning among both students and faculty. Individual schools — particularly our graduate and professional schools — may have varying calendars due to the nature of particular fields of study. Please refer to each school's website for more information.

## Fall Semester 2021

College of Arts & Sciences, McKelvey School of Engineering, Olin Business School, Sam Fox School of Design & Visual Arts, and University College

Date	Day	Description
August 30	Monday	First day of classes
September 6	Monday	Labor Day - no classes
October 9-12	Saturday-Tuesday	Fall Break - no classes
November 24-28	Wednesday-Sunday	Thanksgiving break - no classes
December 10	Friday	Last day of classes
December 13-22	Monday-Wednesday	Reading and Finals

## Spring Semester 2022

College of Arts & Sciences, McKelvey School of Engineering, Olin Business School, Sam Fox School of Design & Visual Arts, and University College

Date	Day	Description
January 18	Tuesday	First day of classes
March 13-19	Sunday-Saturday	Spring Break - no classes
April 29	Friday	Last day of classes
May 2-11	Monday-Wednesday	Reading and Finals

### Commencement Ceremonies

Date	Day	Description
May 20	Friday	Class of 2022 Commencement

## Summer Semester 2022

Date	Day	Description
May 23	Monday	First Summer Session begins
May 30	Monday	Memorial Day holiday (no classes)
July 4	Monday	Independence Day holiday - no classes
August 18	Thursday	Last Summer Session ends

Washington University recognizes the individual student's choice in observing religious holidays that occur during periods when classes are scheduled. Students are encouraged to arrange with their instructors to make up work missed as a result of religious observance, and instructors are asked to make every reasonable effort to accommodate such requests.

## Campus Resources

### Student Support Services

**The Learning Center.** The Learning Center is located on the lower level of the Mallinckrodt Center, and it is the hub of academic support at Washington University in St. Louis. We provide undergraduate students with assistance in a variety of forms. Most services are free, and each year more than 2,000 students participate in one or more of our programs. For more information, visit the Learning Center website (<https://learningcenter.wustl.edu/>) or call 314-935-5970. There are three types of services housed within the Learning Center:

- **Academic Mentoring Programs** offer academic support in partnership with the academic departments in a variety of forms. Academic mentoring programs are designed to support students in their course work by helping them develop the lifelong skill of "learning how to learn" and by stimulating their independent thinking. Programs include course-specific weekly structured study groups facilitated by highly trained peer leaders as well as course-specific weekly walk-in sessions facilitated by academic mentors in locations, at times and in formats convenient for the students. The Learning Center also offers individual consulting/coaching for academic skills such as time management, study skills, note taking, accessing resources and so on. Other services include fee-based graduate and professional school entrance preparation courses.
- **Disability Resources** supports students with disabilities by fostering and facilitating an equal access environment for the Washington University community of learners. Disability Resources partners with faculty and staff to facilitate academic and housing accommodations for students with disabilities on the Danforth Campus. Students enrolled in the School of Medicine should contact their program's director. Please visit the Disability Resources website (<https://students.wustl.edu/disability-resources/>) or contact the Learning Center at 314-935-5970 for more information.
- **TRIO: Student Support Services** is a federally funded program that provides customized services for undergraduate students who are low income, who are the first in their family to go to college, and/or who have a documented disability. Services include academic coaching, academic peer mentoring, cultural and leadership programs, summer internship assistance and post-graduation advising. First-year and transfer students are considered for selection during the summer before they enter their first semester. Eligible students are encouraged to apply when they are notified, because space in this program is limited. For more information, visit the TRIO Program website (<https://students.wustl.edu/trio-program/>).

**Medical Student Support Services.** For information about Medical Student Support Services, please visit the School of Medicine website (<https://medicine.wustl.edu>).

**Office for International Students and Scholars.** If a student is joining the university from a country other than the United States, this office can assist that individual through their orientation programs, issue certificates of eligibility (visa documents), and provide visa and immigration information. In addition, the office provides personal and cross-cultural counseling and arranges social, cultural and recreational activities that foster international understanding on campus.

The Office for International Students and Scholars is located on the Danforth Campus in the Danforth University Center at 6475 Forsyth Boulevard, Room 330. The office can be found on the Medical Campus in the Mid Campus Center (MCC Building) at 4590 Children's Place, Room 2043. For more information, visit the Office for International Students and Scholars website (<http://oiss.wustl.edu>) or call 314-935-5910.

**Office of Military and Veteran Services.** This office serves as the university's focal point for military and veteran matters, including transitioning military-connected students into higher education, providing and connecting students with programs and services, and partnering across campus and in the community. Services include advising current and prospective students on how to navigate the university and maximize Department of Defense and Veterans Affairs (VA) educational benefits, transition support, Veteran Ally training for faculty and staff, veteran-unique programming, and connecting students to campus and community resources. Military-connected students include veterans, military service members, spouses, dependent children, caregivers, survivors and Reserve Officer Training Corp cadets. There are two university policies that apply to students who still serve in the Armed Forces and students who use VA educational benefits:

- The Policy on Military Absences, Refunds and Readmissions (<https://veterans.wustl.edu/policies/policy-for-military-students/>) applies to students serving in the U.S. Armed Forces and their family members when military service forces them to be absent or withdraw from a course of study.
- The Policy on Protections for VA Educational Benefit Users (<https://veterans.wustl.edu/policies/policy-for-va-students/>) applies to students using VA education benefits when payments to the institution and the individual are delayed through no fault of the student.

The Office of Military and Veteran Services is located in Umrath Hall on the Danforth Campus. Please visit the Military and Veteran Services website (<https://veterans.wustl.edu/>) or send an email to [veterans@wustl.edu](mailto:veterans@wustl.edu) for more information.

**Relationship and Sexual Violence Prevention (RSVP) Center.** The RSVP Center offers free and confidential services including 24/7 crisis intervention, counseling services, resources, support and prevention education for all students on the Danforth

Campus. The RSVP Center operates from a public health model and uses trauma-informed practices to address the prevalent issues of relationship and sexual violence. By providing support for affected students, it is our goal to foster post-traumatic growth and resilience and to help ensure academic retention and success. Our prevention efforts call for community engagement to engender an intolerance of violence and an active stance toward challenging cultural injustices that perpetuate such issues. Learn more at the RSVP Center website (<https://rsvpcenter.wustl.edu/>).

**WashU Cares.** WashU Cares assists the university with handling situations involving the safety and well-being of Danforth Campus students. WashU Cares is committed to fostering student success and campus safety through a proactive, collaborative and systematic approach to the identification of, intervention with and support of students of concern while empowering all university community members to create a culture of caring. If there is a concern about the physical or mental well-being of a student, please visit the WashU Cares website (<https://washucares.wustl.edu/>) to file a report.

**The Writing Center.** The Writing Center — a free service — offers writing advice to all Washington University undergraduate and graduate students. Tutors will read and discuss any kind of work in progress, including student papers, senior theses, application materials, dissertations and oral presentations. The Writing Center staff is trained to work with students at any stage of the writing process, including brainstorming, developing and clarifying an argument, organizing evidence, and improving style. Rather than editing or proofreading, tutors will emphasize the process of revision and teach students how to edit their own work.

The Writing Center is located in Mallinkrodt Center on the lower level. Appointments (<http://writingcenter.wustl.edu>) are preferred and can be made online.

## Student Health Services, Danforth Campus

The Habif Health and Wellness Center provides medical and mental health care and health promotion for undergraduate and graduate students on the Danforth Campus. Habif staff members include licensed professionals in Medical Services, Mental Health Services and Health Promotion Services. Please visit Habif in the lower level of Dardick House on the South 40 or the Habif Health and Wellness Center website (<http://shs.wustl.edu>) for more information about Habif's services and staff members.

### Hours:

Monday-Thursday: 8 a.m.-6 p.m.

Friday: 9 a.m.-5 p.m.

Saturday: 9 a.m.-1 p.m. (urgent medical care only)



A nurse answer line and an after-hours mental health support line are available to answer any medical or mental health questions a student may have when Habif is closed. For after-hours care, please call 314-935-6666 and follow the prompts.

**Medical Services** staff members provide care for the evaluation and treatment of an illness or injury, preventive health care and health education, immunizations, nutrition counseling, and travel medicine and sexual health services. Habif Health and Wellness Center providers are participating members of the Washington University in St. Louis Physician's Network. Any condition requiring specialized medical services will be referred to an appropriate specialist. Habif accepts most health insurance plans and will be able to bill the plan according to plan benefits. The student health insurance plan requires a referral for medical care any time care is not provided at Habif (except in an emergency). Call 314-935-6666 or visit the Habif website to schedule an appointment (<http://shs.wustl.edu>).

Appointments are also available for the assessment, treatment, and referral of students who are struggling with substance abuse.

Quadrangle Pharmacy, located in the Habif Health and Wellness Center, is available to all Washington University students and their dependents. The pharmacy accepts most prescription insurance plans; students should check with the pharmacist to see if their prescription plan is accepted at the pharmacy.

The Habif Health and Wellness Center lab provides full laboratory services. Approximately 20 tests can be performed in the lab. The remainder of all testing that is ordered by Habif is completed by LabCorp. LabCorp serves as Habif's reference lab, and it is a preferred provider on the student health insurance plan. This lab can perform any test ordered by Habif providers or outside providers.

All incoming students must provide proof of immunization for measles, mumps, and rubella (i.e., two vaccinations after the age of one year old; a titer may be provided in lieu of the immunizations). Proof of receiving a meningococcal vaccine is required for all incoming undergraduate students. A PPD skin test in the past six months is required for students entering the university from certain countries; this list of countries may be found on the Habif website. It is also recommended that, during the five years before beginning their studies at Washington University, all students will have received the tetanus diphtheria immunization, the hepatitis A vaccine series, the hepatitis B vaccine series, and the varicella vaccine. Medical history forms (<http://shs.wustl.edu>) are available online. Failure to complete the required forms will delay a student's registration and prevent their entrance into housing assignments. Please visit the Habif website for complete information about requirements and deadlines (<http://shs.wustl.edu>).

**Mental Health Services** staff members work with students to resolve personal and interpersonal difficulties, including conflicts with or worry about friends or family, concerns about eating or drinking patterns, and feelings of anxiety and depression. Staff members help each person figure out their own situation. Services include individual, group and couples counseling; crisis counseling; psychiatric consultation; and referral for off-campus counseling. Visit the Habif website to schedule an appointment (<http://shs.wustl.edu>), or call 314-935-6666 during business hours.

**Health Promotion Services** staff and Peer Health Educators provide free programs and risk reduction information related to stress, sleep, sexual health, alcohol/other drugs, and community care. For more information, visit the Zenker Wellness Suite in Summers Recreation Center to learn about the programs on campus led by student peer health educators. For information, visit the Health and Wellness Digital Library (<https://students.wustl.edu/health-wellness-digital-library/>), follow Habif on Instagram (<https://www.instagram.com/>) (@washu\_habif), or email [wellness@wustl.edu](mailto:wellness@wustl.edu).

In 2018, this department launched the **WashU Recovery Group** to provide an opportunity for students in recovery from substance use to connect with other students with similar experiences. The group provides local resources, support, meetings and activities. Members have 24/7 access to a private facility to study, meet and socialize (*in-person services will resume as COVID-19 pandemic restrictions allow*). The group is not a recovery program; it is a confidential resource that students can add to their support system. For more information, send an email to [recovery@wustl.edu](mailto:recovery@wustl.edu).

## Important Information About Health Insurance, Danforth Campus

Washington University has a student health fee that was designed to improve the health and wellness of the entire Washington University community. This fee supports health and wellness services and programs on campus. In addition, all full-time, degree-seeking Washington University students are automatically enrolled in the Student Health Insurance Plan upon completion of registration, with an additional health insurance fee applied to their student account. Students may opt out of this coverage and receive a refund of the health insurance fee if they provide proof of existing comprehensive insurance coverage that meets all university requirements. Information concerning opting out of the student health insurance plan (<http://shs.wustl.edu>) can be found online after June 1 of each year. All students must request to opt out by September 5 of every year in which they wish to be removed from the Student Health Insurance Plan. Habif provides billing services to many of the major insurance companies in the United States. Specific fees and copays apply

to students using Medical Services and Mental Health Services; these fees may be billable to the students' insurance plans. More information is available on the Habib Health and Wellness Center website (<http://shs.wustl.edu>).

## Student Health Services, Medical Campus

For information about student health services on the Medical Campus, please visit the Student & Occupational Health Services page (<https://wusmhealth.wustl.edu/students/>) of the School of Medicine website.

## Campus Security

The Washington University campus is among the most attractive in the nation, and it enjoys a safe and relaxed atmosphere. Personal safety and the security of personal property while on campus is a shared responsibility. Washington University has made safety and security a priority through our commitment to a full-time professional police department, the use of closed-circuit television, card access, good lighting, shuttle services, emergency telephones, and ongoing educational safety awareness programs. The vast majority of crimes that occur on college campuses are crimes of opportunity, which can be prevented.

The best protection against crime is an informed and alert campus community. Washington University has developed several programs to help make everyone's experiences here safe and secure. An extensive network of emergency telephones — including more than 200 "blue light" telephones — is connected directly to the University Police Department and can alert the police to a person's exact location. In addition to the regular shuttle service, an evening walking escort service and a mobile Campus Circulator shuttle are available on the Danforth Campus.

The Campus2Home shuttle will provide a safe ride home for those living in four designated areas off campus — Skinker-DeBaliviere, Loop South, north of the Loop, and just south of the campus — from 6:00 p.m. to 4:00 a.m. seven days a week. The shuttle leaves from the Mallinckrodt Center every 15 minutes and takes passengers directly to the front doors of their buildings. Shuttle drivers will then wait and watch to make sure passengers get into their buildings safely. Community members can track the shuttle in real time using the WUSTL Mobile App. The app can be downloaded free of charge from the Apple iTunes Store or the Google Play Store.

The University Police Department is a full-service organization staffed by certified police officers who patrol the campus 24 hours a day throughout the entire year. The department offers a variety of crime prevention programs, including a high-security bicycle lock program, free personal-safety whistles, computer security tags, personal safety classes for women and men, and security surveys. Community members are encouraged

to download and install the WashU Safe personal safety app on their phones; this app allows users to call for help during emergencies, to use Friend Walk to track their walks on and off campus, and to access many additional safety features. For more information about these programs, visit the Washington University Police Department website (<https://police.wustl.edu/>).

In compliance with the Campus Crime Awareness and Security Act of 1990, Washington University publishes an annual report (<http://police.wustl.edu/clery-reports-logs/>) entitled *Safety & Security: Guide for Students, Faculty, and Staff — Annual Campus Security and Fire Safety Reports and Drug & Alcohol Abuse Prevention Program*. This report is available to all current and prospective students on the Danforth Campus and to university employees on the Danforth, North and West campuses. To request a hard copy, contact the Washington University Police Department, CB 1038, One Brookings Drive, St. Louis, MO 63130-4899, 314-935-9011.

For information regarding protective services at the School of Medicine, please visit the Security page (<https://facilities.med.wustl.edu/security/>) of the Washington University Operations & Facilities Management Department.

## University Policies

Washington University has various policies and procedures that govern our faculty, staff and students. Highlighted below are several key policies of the university. Web links to key policies and procedures are available on the Office of the University Registrar website (<http://registrar.wustl.edu>) and on the university's Compliance and Policies page (<http://wustl.edu/policies/>). Please note that the policies identified on these websites and in this *Bulletin* do not represent an entire repository of university policies, as schools, offices and departments may implement policies that are not listed. In addition, policies may be amended throughout the year.

## Nondiscrimination Statement

Washington University encourages and gives full consideration to all applicants for admission, financial aid and employment. The university does not discriminate in access to, treatment during, or employment in its programs and activities on the basis of race, color, age, religion, sex, sexual orientation, gender identity or expression, national origin, veteran status, disability or genetic information.

## Policy on Discrimination and Harassment

Washington University is committed to having a positive learning and working environment for its students, faculty and staff. University policy prohibits discrimination on the basis of race, color, age, religion, sex, sexual orientation, gender identity or expression, national origin, veteran status, disability or genetic information. Harassment based on any of these classifications

is a form of discrimination; it violates university policy and will not be tolerated. In some circumstances, such discriminatory harassment may also violate federal, state or local law. A copy of the Policy on Discrimination and Harassment (<http://hr.wustl.edu/policies/Pages/DiscriminationAndHarassment.aspx>) is available on the Human Resources website.

## Sexual Harassment

Sexual harassment is a form of discrimination that violates university policy and will not be tolerated. It is also illegal under state and federal law. Title IX of the Education Amendments of 1972 prohibits discrimination based on sex (including sexual harassment and sexual violence) in the university's educational programs and activities. Title IX also prohibits retaliation for asserting claims of sex discrimination. The university has designated the Title IX Coordinator identified below to coordinate its compliance with and response to inquiries concerning Title IX.

For more information or to report a violation under the Policy on Discrimination and Harassment, please contact the following individuals:

### Discrimination and Harassment Response Coordinator

Apryle Cotton, Assistant Vice Chancellor for Human Resources  
Section 504 Coordinator  
Phone: 314-362-6774  
[apryle.cotton@wustl.edu](mailto:apryle.cotton@wustl.edu)

### Title IX Coordinator

Jessica Kennedy, Director of Title IX Office  
Title IX Coordinator  
Phone: 314-935-3118  
[jwkennedy@wustl.edu](mailto:jwkennedy@wustl.edu)

You may also submit inquiries or a complaint regarding civil rights to the United States Department of Education's Office of Civil Rights at 400 Maryland Avenue, SW, Washington, DC 20202-1100; by visiting the U.S. Department of Education website (<https://www.ed.gov/>); or by calling 800-421-3481.

## Student Health

### Drug and Alcohol Policy

Washington University is committed to maintaining a safe and healthy environment for members of the university community by promoting a drug-free environment as well as one free of the abuse of alcohol. Violations of the Washington University Drug and Alcohol Policy (<https://hr.wustl.edu/items/drug-and-alcohol-policy/>) or the Alcohol Policy for Graduate Student Organizations (<https://sites.wustl.edu/prograds/university-wide-graduate-student-group-handbook/alcohol-policy-for-graduate-student-organizations/>) will be handled according to existing

policies and procedures concerning the conduct of faculty, staff and students. This policy is adopted in accordance with the Drug-Free Workplace Act and the Drug-Free Schools and Communities Act.

### Tobacco-Free Policy

Washington University is committed to providing a healthy, comfortable and productive work and learning environment for all students, faculty and staff. Research shows that tobacco use in general, including smoking and breathing secondhand smoke, constitutes a significant health hazard. The university strictly prohibits all smoking and other uses of tobacco products within all university buildings and on university property, at all times. A copy of our complete Tobacco-Free Policy (<https://hr.wustl.edu/items/tobacco-free-policy/>) is available on the Human Resources website.

### Medical Examinations

Entering students must provide medical information to the Habif Health and Wellness Center. This will include the completion of a health history and a record of all current immunizations.

If students fail to comply with these requirements prior to registration, they will be required to obtain vaccinations for measles, mumps and rubella at the Habif Health and Wellness Center, if there is no evidence of immunity. In addition, undergraduate students will be required to obtain meningitis vaccinations. Students will be assessed the cost of the vaccinations. Students will be unable to complete registration for classes until all health requirements have been satisfied.

Noncompliant students may be barred from classes and from all university facilities, including housing units, if in the judgment of the university their continued presence would pose a health risk to themselves or to the university community.

Medical and immunization information is to be given via the Habif Health and Wellness Center (<https://students.wustl.edu/habif-health-wellness-center/>) website. All students who have completed the registration process should access the website and create a student profile by using their WUSTL Key. Creating a student profile enables a student to securely access the medical history form. Students should fill out the form and follow the instructions for transmitting it to the Habif Health and Wellness Center. Student information is treated securely and confidentially.

### Student Conduct

The Student Conduct Code sets forth community standards and expectations for Washington University students. These community standards and expectations are intended to foster an environment conducive to learning and inquiry. Freedom of thought and expression is essential to the university's academic mission.

Disciplinary proceedings are meant to be informal, fair and expeditious. Charges of non-serious misconduct are generally heard by the student conduct officer. With limited exceptions, serious or repeated allegations are heard by the campuswide Student Conduct Board or the University Sexual Assault Investigation Board where applicable.

Complaints against students that include allegations of sexual assault or certain complaints that include allegations of sexual harassment in violation of the Student Conduct Code are governed by the procedures found in the University Sexual Assault Investigation Board Policy (<https://wustl.edu/about/compliance-policies/governance/usaib-procedures-complaints-sexual-assault-filed-students/>), which is available online or in hard copy from the Title IX coordinator or the director of Student Conduct and Community Standards.

Students may be accountable to both governmental authorities and to the university for acts that constitute violations of law and the Student Conduct Code.

For a complete copy of the Student Conduct Code (<https://wustl.edu/about/compliance-policies/academic-policies/university-student-judicial-code/>), visit the university website.

## Undergraduate Student Academic Integrity Policy

Effective learning, teaching and research all depend upon the ability of members of the academic community to trust one another and to trust the integrity of work that is submitted for academic credit or conducted in the wider arena of scholarly research. Such an atmosphere of mutual trust fosters the free exchange of ideas and enables all members of the community to achieve their highest potential.

In all academic work, the ideas and contributions of others must be appropriately acknowledged, and work that is presented as original must be, in fact, original. Faculty, students and administrative staff all share the responsibility of ensuring the honesty and fairness of the intellectual environment at Washington University.

### Scope and Purpose

This statement on academic integrity applies to all undergraduate students at Washington University. Graduate students are governed by policies in each graduate school or division. All students are expected to adhere to the highest standards of behavior. The purpose of the statement is twofold:

1. To clarify the university's expectations with regard to undergraduate students' academic behavior; and
2. To provide specific examples of dishonest conduct. The examples are only illustrative, *not* exhaustive.

## Violations of This Policy Include but Are Not Limited to the Following:

### 1. Plagiarism

Plagiarism consists of taking someone else's ideas, words or other types of work product and presenting them as one's own. To avoid plagiarism, students are expected to be attentive to proper methods of documentation and acknowledgment. To avoid even the suspicion of plagiarism, a student must always do the following:

- Enclose every quotation in quotation marks and acknowledge its source.
- Cite the source of every summary, paraphrase, abstraction or adaptation of material originally prepared by another person and any factual data that is not considered common knowledge. Include the name of author, title of work, publication information and page reference.
- Acknowledge material obtained from lectures, interviews or other oral communication by citing the source (i.e., the name of the speaker, the occasion, the place and the date).
- Cite material from the internet as if it were from a traditionally published source. Follow the citation style or requirements of the instructor for whom the work is produced.

### 2. Cheating on an Examination

A student must not receive or provide any unauthorized assistance on an examination. During an examination, a student may use only materials authorized by the faculty.

### 3. Copying or Collaborating on Assignments Without Permission

When a student submits work with their name on it, this is a written statement that credit for the work belongs to that student alone. If the work was a product of collaboration, each student is expected to clearly acknowledge in writing all persons who contributed to its completion.

Unless the instructor explicitly states otherwise, it is dishonest to collaborate with others when completing any assignment or test, performing laboratory experiments, writing and/or documenting computer programs, writing papers or reports, or completing problem sets.

If the instructor allows group work in some circumstances but not others, it is the student's responsibility to understand the degree of acceptable collaboration for each assignment and to ask for clarification, if necessary.

To avoid cheating or unauthorized collaboration, a student should never do any of the following:

- Use, copy or paraphrase the results of another person's work and represent that work as one's own, regardless of the circumstances.
- Refer to, study from or copy archival files (e.g., old tests, homework, solutions manuals, backfiles) that were not approved by the instructor.
- Copy another's work or permit another student to copy one's work.
- Submit work as a collaborative effort if they did not contribute a fair share of the effort.

#### 4. Fabrication or Falsification of Data or Records

It is dishonest to fabricate or falsify data in laboratory experiments, research papers or reports or in any other circumstances; to fabricate source material in a bibliography or "works cited" list; or to provide false information on a résumé or other document in connection with academic efforts. It is also dishonest to take data developed by someone else and present them as one's own. Examples of falsification include the following:

- Altering information on any exam, problem set or class assignment being submitted for a re-grade.
- Altering, omitting or inventing laboratory data to submit as one's own findings. This includes copying laboratory data from another student to present as one's own; modifying data in a write-up; and providing data to another student to submit as one's own.

#### 5. Other Forms of Deceit, Dishonesty or Inappropriate Conduct

Under no circumstances is it acceptable for a student to do any of the following:

- Submit the same work, or essentially the same work, for more than one course without explicitly obtaining permission from all instructors. A student must disclose when a paper or project builds on work completed earlier in their academic career.
- Request an academic benefit based on false information or deception. This includes requesting an extension of time, a better grade or a recommendation from an instructor.
- Make any changes (including adding material or erasing material) on any test paper, problem set or class assignment being submitted for a re-grade.
- Willfully damage the efforts or work of other students.
- Steal, deface or damage academic facilities or materials.
- Collaborate with other students planning or engaging in any form of academic misconduct.
- Submit any academic work under someone else's name other than one's own. This includes but is not limited to sitting for another person's exam; both parties will be held responsible.
- Engage in any other form of academic misconduct not covered here.

This list is not intended to be exhaustive. To seek clarification, students should ask the professor or the assistant in instruction for guidance.

## Reporting Misconduct

### Faculty Responsibility

Faculty and instructors are strongly encouraged to report incidents of student academic misconduct to the academic integrity officer in their school or college in a timely manner so that the incident may be handled fairly and consistently across schools and departments. Assistants in instruction are expected to report instances of student misconduct to their supervising instructors. Faculty members are expected to respond to student concerns about academic dishonesty in their courses.

### Student Responsibility

If a student observes others violating this policy, the student is strongly encouraged to report the misconduct to the instructor, to seek advice from the academic integrity officer of the school or college that offers the course in question, or to address the student(s) directly.

### Exam Proctor Responsibility

Exam proctors are expected to report incidents of suspected student misconduct to the course instructor and/or the Disability Resource Center, if applicable.

## Procedure

### Jurisdiction

This policy covers all undergraduate students, regardless of their college of enrollment. Cases will be heard by school-specific committees according to the school in which the class is listed rather than the school in which the student is enrolled. All violations and sanctions will be reported to the student's college of enrollment.

### Administrative Procedures

Individual undergraduate colleges and schools may design specific procedures to resolve allegations of academic misconduct by students in courses offered by that school, so long as the procedures are consistent with this policy and with the Student Conduct Code.

### Student Rights and Responsibilities in a Hearing

A student accused of an academic integrity violation — whether by a professor, an assistant in instruction, an academic integrity officer or another student — is entitled to do the following:

- Review the written evidence in support of the charge
- Ask any questions
- Offer an explanation as to what occurred
- Present any material that would cast doubt on the correctness of the charge
- Receive a determination of the validity of the charge without reference to any past record of misconduct

When responding to a charge of academic misconduct, a student may do the following:

- Deny the charges and request a hearing in front of the appropriate academic integrity officer or committee
- Admit the charges and request a hearing to determine sanction(s)
- Admit the charges and accept the imposition of sanctions without a hearing
- Request a leave of absence from the university (however, the academic integrity matter must be resolved prior to re-enrollment)
- Request to withdraw permanently from the university with a transcript notation that there is an unresolved academic integrity matter pending

A student has the following responsibilities with regard to resolving the charge of academic misconduct:

- Admit or deny the charge. This will determine the course of action to be pursued.
- Provide truthful information regarding the charges. It is a Student Conduct Code violation to provide false information to the university or anyone acting on its behalf.

## Sanctions

### If Found *Not* in Violation of the Academic Integrity Policy

If the charges of academic misconduct are not proven, no record of the allegation will appear on the student's transcript.

### If Found in Violation of the Academic Integrity Policy

If, after a hearing, a student is found to have acted dishonestly or if a student has admitted to the charges prior to a hearing, the school's academic integrity officer or committee may impose sanctions, including but not limited to the following:

- Issue a formal written reprimand
- Impose educational sanctions, such as completing a workshop on plagiarism or academic ethics
- Recommend to the instructor that the student fail the assignment (a given grade is ultimately the prerogative of the instructor)
- Recommend to the instructor that the student fail the course

- Recommend to the instructor that the student receive a course grade penalty less severe than failure of the course
- Place the student on disciplinary probation for a specified period of time or until defined conditions are met. The probation will be noted on the student's transcript and internal record while it is in force.
- In cases serious enough to warrant suspension or expulsion from the university, refer the matter to the Student Conduct Board for consideration.

Additional educational sanctions may be imposed. This list is not intended to be exhaustive.

Withdrawing from the course will not prevent the academic integrity officer or hearing panel from adjudicating the case, imposing sanctions or recommending grade penalties, including a failing grade in the course.

A copy of the sanction letter will be placed in the student's academic file.

## Appeals

If a student believes the academic integrity officer or the committee did not conduct a fair hearing or if a student believes the sanction imposed for misconduct is excessive, they may appeal to the Student Conduct Board within 14 days of the original decision. Appeals are governed by Section VII C of the Student Conduct Code.

## Records

### Administrative Record-Keeping Responsibilities

It is the responsibility of the academic integrity officer in each school to keep accurate, confidential records concerning academic integrity violations. When a student has been found to have acted dishonestly, a letter summarizing the allegation, the outcome and the sanction shall be placed in the student's official file in the office of the school or college in which the student is enrolled.

In addition, each school's academic integrity officer shall make a report of the outcome of every formal accusation of student academic misconduct to the director of Student Conduct and Community Standards, who shall maintain a record of each incident.

### Multiple Offenses

When a student is formally accused of academic misconduct and a hearing is to be held by an academic integrity officer, a committee, or the Office of Student Conduct and Community Standards, the person in charge of administering the hearing shall query the Office of Student Conduct and Community Standards about the student(s) accused of misconduct. The director shall provide any information in the records concerning that student to the integrity officer. Such information will be

used in determining sanctions *only* if the student is found to have acted dishonestly in the present case. Evidence of past misconduct may not be used to resolve the issue of whether a student has acted dishonestly in a subsequent case.

## Reports to Faculty and Student Body

School and college academic integrity officers are encouraged to make periodic (at least annual) reports to the students and faculty of their school concerning accusations of academic misconduct and the outcomes, without disclosing specific information that would allow identification of the student(s) involved.

## Graduate Student Academic Integrity Policies

For graduate student academic integrity policies, please refer to each individual graduate school.

## Statement of Intent to Graduate

Students are required to file an Intent to Graduate at WebSTAC (<https://acadinfo.wustl.edu/>) prior to the semester in which they intend to graduate. Additional information is available from school dean's offices and the Office of the University Registrar (<http://registrar.wustl.edu>).

## Student Academic Records and Transcripts

Under the Family Educational Rights and Privacy Act of 1974 (FERPA) — Title 20 of the United States Code, Section 1232g, as amended — current and former students of the university have certain rights with regard to their educational records. The university policy that enacts these rights is available via the Office of the University Registrar's website (<http://registrar.wustl.edu>).

All current and former students request transcripts via either WebSTAC (if they remember their WUSTL Key) or Parchment (if they do not have or cannot remember their WUSTL Key). Instructions and additional information are available on the Office of the University Registrar's website (<http://registrar.wustl.edu>).

## University Affiliations

Washington University is accredited by the Higher Learning Commission (<https://www.hlcommission.org/>) (800-621-7440). Washington University is a member of the American Academy of Arts & Sciences (AAAS (<https://www.amacad.org/>)), the American Association of University Women (AAUW (<https://www.aauw.org/>)), the American Council of Learned Societies (ACLS (<https://www.acls.org/>)), the American Council on Education (ACE (<https://www.acenet.edu/>)), the Association of American Colleges & Universities (AACU (<https://www.aacu.org/>)), the Association of American Universities (AAU (<https://www.aau.edu/>)), the College

Board (<https://www.collegeboard.org/>), the Hispanic Association of Colleges & Universities (HACU (<https://www.hacu.net/>)), the Independent Colleges and Universities of Missouri (ICUM (<https://www.independentcollegesanduniversitiesofmo.com/>)), the National Association of Independent Colleges and Universities (NAICU (<https://www.naicu.edu/>)), the National Council for State Authorization Reciprocity Agreements (NC-SARA (<https://nc-sara.org/>)), the Oak Ridge Associated Universities (ORAU (<https://www.orau.org/>)), and the University Research Association (URA (<https://www.ura-hq.org/>)).

The College of Arts & Sciences is a member of the American Association of Collegiate Registrars and Admissions Officers (AACRAO (<https://www.aacrao.org/>)), the International Center for Academic Integrity (ICAI (<https://www.academicintegrity.org/>)), the National Association of Fellowships Advisors (NAFA (<https://nafadvisors.org/>)), the National Association of Advisors for Health Professions (NAAHP (<https://www.naahp.org/>)), the Midwest Association of Pre-Law Advisors (MAPLA (<https://mapla.org/>)), the North American Association of Summer Sessions (NAASS (<https://naass.org/>)), and the Association of University Summer Sessions (AUSS (<https://www.theauss.org/>)).

The College of Architecture was one of the eight founding members of the Association of Collegiate Schools of Architecture (ACSA (<https://www.acsa-arch.org/>)) in 1912.

The Graduate School is a founding member of both the Association of Graduate Schools (AGS (<https://www.aau.edu/taxonomy/term/446/>)) and the Council of Graduate Schools (CGS (<https://cgsnet.org/>)).

The Graduate School of Architecture & Urban Design's Master of Architecture degree is accredited by the National Architectural Accreditation Board (NAAB (<https://www.naab.org/>)), and its Master of Landscape Architecture degree is accredited by the Landscape Architectural Accreditation Board (LAAB (<https://www.asla.org/accreditationlaab.aspx>)).

The Sam Fox School of Design & Visual Arts is a founding member of and accredited by the National Association of Schools of Art and Design (NASAD (<https://nasad.arts-accredit.org/>)).

The Olin Business School is a charter member (1921) of and accredited by the Association to Advance Collegiate Schools of Business International (AACSB (<https://www.aacsb.edu/>)). Olin Business School is also accredited by the Association of MBAs (AMBA (<https://www.associationofmbas.com/>)).

In the McKelvey School of Engineering, many of the professional degrees are accredited by the Engineering Accreditation Commission of ABET (<http://abet.org>).

University College is a member of the University Professional and Continuing Education Association (UPCEA (<https://upcea.edu/>)), the International Center for Academic Integrity (ICAI (<https://www.academicintegrity.org/>)), the American Association of Collegiate Registrars and Admissions Officers

(AACRAO (<https://www.aacrao.org/>)), the National Academic Advising Association (NACADA (<https://nacada.ksu.edu/>)), the National Association of Advisors for Health Professions (NAAHP (<https://www.naahp.org/>)), and the National Association Student Personnel Administrators (NASPA (<https://www.naspa.org/>)). Business-related programs in University College are not accredited by the Association to Advance Collegiate Schools of Business International (AACSB (<https://www.aacsb.edu/>)).

The School of Law is accredited by the American Bar Association (ABA (<https://www.americanbar.org/>)). The School of Law is a member of the Association of American Law Schools (AALS (<https://www.aals.org/>)), the American Society of Comparative Law (ASCL (<https://ascl.org/>)), the Clinical Legal Education Association (CLEA (<https://www.cleaweb.org/>)), the Southeastern Association of Law Schools (SEALS (<https://sealslawschools.org/>)), the Central States Law Schools Association (CSLSA (<http://cslsa.us/>)), the Mid-America Law Library Consortium (MALLCO (<https://mallco.libguides.com/>)), the American Association of Law Libraries (AALL (<https://www.aallnet.org/>)), the American Society of International Law (ASIL (<https://www.asil.org/>)), the Mid-America Association of Law Libraries (MAALL (<https://maall.wildapricot.org/>)), the National Association for Law Placement (NALP (<https://www.nalp.org/>)), and Equal Justice Works (<https://www.equaljusticeworks.org/>)).

The School of Medicine is a member of the Liaison Committee on Medical Education (LCME (<https://www.aamc.org/services/first-for-financial-aid-officers/lcme-accreditation/>)).

The Brown School at Washington University is accredited by the Council on Social Work Education (CSWE (<https://www.cswe.org/>)) and the Council on Education for Public Health (CEPH (<https://ceph.org/>)).

The University Libraries are a member of the Association of Research Libraries (ARL (<https://www.arl.org/>)).

The Mildred Lane Kemper Art Museum is nationally accredited by the American Alliance of Museums (AAM (<https://www.aam-us.org/>)).

Additional information about professional and specialized accreditation can be found on the Office of the Provost website (<https://provost.wustl.edu/assessment/accreditors/>).



## Arts & Sciences

The Graduate School historically administered all Master of Arts (AM) and Doctor of Philosophy (PhD) degrees at Washington University from 1964 to 2021. During the 2021-22 academic year, the administrative functions of the Graduate School will transition to the respective AM- and PhD-granting schools at Washington University, including Arts & Sciences, the Olin School of Business, the McKelvey School of Engineering, the School of Medicine, and the Brown School. The university also collaborates with the Goldfarb School of Nursing at Barnes-Jewish College to offer a PhD in Nursing Science.

### Governance

The Graduate Council will continue to serve as the legislative branch for PhD programs. The Council currently consists of one faculty representative and one graduate student representative from each degree-granting program; it is chaired by the vice provost for graduate education. Much of the work of the Council occurs in committees, on which students serve alongside faculty members. This model of shared governance — equal representation and equal responsibility for faculty and graduate students — is believed to be unique among U.S. universities.

### Contact Information

The Graduate School  
Cupples II, Suite 204  
Washington University in St. Louis  
CB 1187  
One Brookings Drive  
St. Louis, MO 63130-4899

Email: [graduateschool@wustl.edu](mailto:graduateschool@wustl.edu)  
Website: <http://graduateschool.wustl.edu/>

### Doctoral Degrees

The PhD is not only an exploration of the body of knowledge of a given discipline; it is also an original contribution to that discipline. To the extent that doctoral education has been successful, the student's relationship to learning is significantly changed. Having made a discovery, developed an insight, tested a theory, or designed an application, the PhD recipient is no longer a student but rather a colleague of the faculty. It is for this reason that the PhD is the highest degree offered by a university.

The core mission of PhD programs at research universities is to educate the future faculty of other research universities and institutions of higher education. Graduates of Washington University participate in research and teaching; they also make valuable contributions to society by applying the analytical and creative skills required for scholarship to careers in the

business, government and nonprofit sectors. The Graduate School therefore works with other university offices to ensure that students have the opportunity to develop these transferable skills.

Among the critical components the university provides for these purposes are a small and select graduate student body, faculty members dedicated to scholarly work, and the physical facilities needed for research. In these regards, Washington University compares favorably to the finest graduate institutions in the world. However, the key ingredients of PhD completion must be provided by the student: a love of learning and a desire to increase the sum of human knowledge. In addition, motivation and perseverance are prerequisites for success in PhD programs.

## Academic Information

### General Requirements

To earn a PhD at Washington University, a student must complete all courses required by their department; maintain satisfactory academic progress; pass certain examinations; fulfill residence and mentored experience requirements; write, defend, and submit a dissertation; and file an Intent to Graduate form on WebSTAC (<https://acadinfo.wustl.edu>).

### Enrollment and Registration

Students newly admitted to the Graduate School receive information on creating a WUSTL Key from the university registrar. The WUSTL Key is used to register for courses online via WebSTAC during open registration periods. All registrations require online approval by the student's faculty adviser and are monitored by the Graduate School.

### Regular Enrollment

Students admitted to a PhD program in the Graduate School must maintain full-time continuous enrollment throughout the approved length of their programs. Most of our PhD programs will be completed within five or six years. During those years, students will be considered full-time if they have one of the following statuses:

- They are registered for 9 or more course units; **or**
- They are registered in a zero-unit course (LGS 9000 Full-time Graduate Research/Study or LGS 9001 Full-time Graduate Study in Absentia) that indicates the student's full-time engagement in research or academic writing.

Registration in LGS 9000 is based on a recommendation from the student's adviser stating the student is making satisfactory progress toward the degree.

During a student's period of regular registration, they may have a need or opportunity to study away from Washington University. Recommendations from departments for students' registration in absentia will be considered by the Graduate School on a case-

by-case basis. If approved by the Graduate School, the student will be registered for LGS 9001 Full-time Graduate Study in Absentia. Students may be allowed to register for LGS 9001 for up to four consecutive or nonconsecutive fall/spring semesters. Semesters in which a student is registered in absentia are counted as part of the student's program length.

PhD students in Arts & Sciences who are fully funded, registered full-time within their program length, and making satisfactory academic progress will receive tuition remission and the 90% health insurance, dental insurance and wellness fee subsidies. Tuition each semester will be calculated based on the number of registered course units.

### Enrollment Extension

Students may be permitted to register for one additional year beyond their program length. When recommended by their department and approved by the Graduate School, these students will be registered in a zero-unit course (LGS 9002 Full-time Graduate Study Extension) that confers full-time enrollment status. Students registered for LGS 9002 may or may not receive stipend support, but they are eligible to receive other benefits available to full-time PhD students in the Graduate School, including health insurance and wellness fee subsidies.

Students may be registered for LGS 9002 for a maximum of two semesters. There will be no exceptions to this limit. Students who do not complete their programs within this time limit must either withdraw from the program or be designated as Degree Candidacy Extended.

### Degree Candidacy Extended

Upon the recommendation of their departments and the approval of the Graduate School, students who do not complete their PhD degrees within their program length and potential one-year enrollment extension may remain doctoral candidates for up to five years. Departmental recommendations and Graduate School approval are required for each year of extended degree candidacy. Extended degree candidates are not registered for any courses, have no enrollment status, and receive none of the benefits available to registered Washington University students, including student loan deferment.

### Part-Time Students

PhD candidates are not admitted as part-time students. Part-time status will be calculated strictly on the basis of registration in fewer than 9 course units without LGS 9000 registration and will be permitted only in extraordinary circumstances.

### Courses and Tuition Remission

The Graduate School will approve tuition remission for up to 72 course units. The 72-unit calculation includes courses transferred from other graduate programs.

Students pursuing a certificate or an unrelated master's degree in addition to their PhD must consult the departments and advisers about credit sharing between the programs. Tuition remission for units in excess of 72 will not be provided by the Graduate School.

To be eligible for tuition remission, courses must be offered at the graduate level, taken for a grade, and approved in advance by the student's adviser and program as necessary for the student's degree. Depending on the program, graduate-level courses begin with courses numbered in the 400s or 500s. Audited courses and courses taken pass/fail are not eligible for tuition remission. Students should consult their advisers regarding course selection.

When certain conditions apply, graduate students may be permitted to register for Arts & Sciences courses numbered below 400, but they may not ordinarily be covered by tuition remission unless approved by the dean of the Graduate School or their designee. Full-time students in the Graduate School who wish to take graduate courses in University College or Summer School must obtain the approval of both their academic adviser and the dean of the Graduate School. Tuition remission may be available for such approved courses.

### Grades

Credit-conferring grades for students in the Graduate School are as follows: A, outstanding; B, good; C, conditional (an A, B or C grade may be modified by a plus or minus); S, satisfactory; and U, unsatisfactory (used almost exclusively for credit units earned by doing research). Other grades are F, failing; N, not submitted yet; X, final examination missed; and I, incomplete. The mark of I becomes a permanent part of the student's record after the lapse of one calendar year unless the program in which the mark was assigned requests an extension of time.

The Graduate School uses a 4-point scale for calculating grade point averages, with A = 4, B = 3, and C = 2. A plus adds 0.3 to the value of a grade, whereas a minus subtracts 0.3 from the value of the grade.

Zero-unit LGS 9000-level courses will have only the satisfactory/unsatisfactory grade option.

### Retaking a Course

Graduate students may be allowed to retake a course once with prior permission from their department or program. The department can refuse the student's request. If permission to retake a course is granted, both registrations will show on the transcript. The grade for the first enrollment will always be replaced by the symbol R. Whether or not it is lower than or equal to the original grade, the grade for the second enrollment will be used to calculate the grade-point average. The grade for the first enrollment will not be replaced with an R until the second enrollment is completed and its grade has posted. A student who retakes a course without prior permission might not

receive permission retroactively. No student may use the retake option to replace a grade received as a sanction for violation of the Academic Integrity Policy. The R option may be invoked only once per course, and the original grade option must be retained.

## Transferred Credit

Credit for previous courses will be transferred to a student's Washington University record only to fulfill departmental course/credit requirements. Departments may request transfer credit from official transcripts after a student's admission to a PhD program.

## Satisfactory Academic Progress

Satisfactory academic progress for students in PhD programs is monitored by the Graduate School as well as by the degree program. Failure to maintain satisfactory academic progress may result in a student's immediate dismissal or in their placement on academic probation for the ensuing year. Most financial awards — and all federally funded awards — are contingent on the maintenance of satisfactory academic progress. Moreover, satisfactory academic progress is a prerequisite for service on any committee authorized by the Graduate School. The following are minimal standards of satisfactory academic progress for PhD students; degree programs may set stricter standards but must not relax these.

1. Students are expected to proceed at a pace appropriate to enable them to finish within the time limits discussed below. Students are expected to have completed all PhD requirements except for the dissertation by no later than the end of the fourth year of full-time graduate study.
2. Students are expected to maintain a cumulative grade-point average of at least 3.0 on a 4.0 scale. Note that plus and minus marks alter the numerical value of a letter grade.
3. Students are expected not to carry at one time any more than 9 credit units for which the grades of I (incomplete), X (final examination missed), or N (not yet submitted) are recorded. The Graduate School may deny a student with more than 9 unfinished credits permission to register.
4. After four years of full-time graduate study, doctoral students who cannot identify three faculty members who are willing to serve on their Research Advisory Committee are not considered to be making satisfactory academic progress. The Title, Scope and Procedure form (PDF) ([http://bulletin.wustl.edu/grad/gsas/phd/academic/Title\\_Scope\\_Procedure\\_PhD\\_0.pdf](http://bulletin.wustl.edu/grad/gsas/phd/academic/Title_Scope_Procedure_PhD_0.pdf)) must be filed before the fifth year in order to identify the membership of the student's Research Advisory Committee.
5. Students may take five or six years to complete the PhD, depending on the program. A one-year extension is available if circumstances warrant. Extensions are obtained by application by the student to the degree program, endorsement by the degree program to the Graduate School, and approval by the Graduate School.

## Qualifying Examinations

Progress toward the PhD is contingent upon the student passing examinations that are variously called *preliminary*, *qualifying*, *general*, *comprehensive* or *major field exams*. The qualifying process varies according to the program. In some programs, it consists of a series of incremental, sequential and cumulative exams over a considerable time. In others, the exams are held during a relatively short period of time. Exams may be replaced by one or more papers. The program, which determines the structure and schedule of the the required examinations, is responsible for notifying the Graduate School of the student's outcome, whether successful or unsuccessful.

## Residence Requirement

Each student must spend at least one academic year enrolled full-time at Washington University. Any exceptions must be approved by the dean of the Graduate School.

## Mentored Experience Requirement

Doctoral students at Washington University must complete a department-defined Mentored Experience. The Mentored Experience Requirement is a doctoral degree milestone that is notated on the student's transcript when complete. Each department has an established Mentored Experience Implementation Plan in which the number of semesters that a student must engage in a Mentored Teaching Experience or a Mentored Professional Experience is defined. The Mentored Experience Implementation Plans outline how doctoral students within the discipline will be mentored to achieve competencies in teaching at basic and advanced levels. Some departments may elect to include the Mentored Professional Experiences as an avenue for completing one or more semesters of the Mentored Experience Requirement. Doctoral students will enroll in LGS 600 Mentored Teaching Experience or LGS 603 Mentored Professional Experience to signify their progression toward completing the overall Mentored Experience Requirement for the degree.

## The Dissertation

As evidence of the mastery of a specific field of knowledge and of the capacity for original scholarly work, each candidate must complete a dissertation. The subject must be approved by a Research Advisory Committee that consists of at least three tenured or tenure-track faculty members. This committee is ordinarily led by the student's major adviser and must be approved by the Graduate School.

A Title, Scope and Procedure form for the dissertation must be signed by the committee members and by the program chair. It must be submitted to the Graduate School at least six months before the degree is expected to be conferred or before beginning the fifth year of full-time enrollment, whichever is earlier.

A Doctoral Dissertation Guide and a template (<http://graduateschool.wustl.edu/guides-0/>) that give instructions regarding the format of the dissertation are available on the Graduate School's website; both should be read carefully at every stage of thesis preparation.

The Graduate School requires each student to make the full text of the dissertation available to the committee members for their review at least one week before the defense. Most degree programs require two or more weeks for the review period; students should check with their faculty.

## Dissertation Defense

Approval of the written dissertation by the Research Advisory Committee is necessary before the student can orally defend the dissertation. The committee that examines the student consists of at least five members, who normally meet two independent criteria:

1. Four of the five must be tenured or tenure-track Washington University faculty; one of these four may be a member of the emeritus faculty. The fifth member must have a doctoral degree and an active research program, whether at Washington University, at another university, in government or in industry.
2. Three of the five normally come from the student's degree program; at least one of the five must not.

All committees must be approved by the dean of the Graduate School or by their designee, regardless of whether they meet the normal criteria.

The committee is appointed by the dean of the Graduate School upon the request of the degree program. The student is responsible for making the full text of the dissertation accessible to their committee members for their review in advance of the defense. Faculty and graduate students who are interested in the subject of the dissertation are normally welcome to attend all or part of the defense but may ask questions only at the discretion of the committee members. Although there is some variation among degree programs, the defense ordinarily focuses on the dissertation itself and its relation to the student's field of expertise.

## Dissertation Submission

After the defense, the student must submit an electronic copy of the dissertation online to the Graduate School. The submission website requires students to choose among publishing and copyrighting services offered by ProQuest's ETD Administrator, but the university permits students to make whichever choices they prefer. Students are asked to submit the Survey of Earned Doctorates separately. The degree program is responsible for delivering the final approval form, signed by the committee members at the defense and then by the program chair or director, to the Graduate School. Students who defend their

dissertations successfully have not completed their PhD requirements; they finish earning the degree only when their dissertation submission has been accepted by the Graduate School.

## Graduation Information

Students are responsible for filing an Intent to Graduate form in order to have each earned degree conferred. The Intent to Graduate is available online through WebSTAC (<https://acadinfo.wustl.edu/>). Deadlines for filing an Intent to Graduate are listed on the Graduate School's website. No degree will be awarded if this form has not been filed. Students who do not complete their degree requirements by their intended graduation date must refile for the next graduation date.

## Specific Circumstances

### Changes in Program of Study

Students are usually admitted to the Graduate School to study toward specific degrees. Therefore, a change in the degree objective (e.g., from AM to PhD) is subject to the approval of both the student's program and the Graduate School. A request for a change in the subject of study (e.g., from economics to history) requires the approval of both programs concerned as well as that of the Graduate School. Students may be required to fill out a new application for admission before making such changes, but they will not be charged a second application fee.

## Student Grievance Procedures

From time to time, students may feel that they have legitimate complaints regarding academic matters or an interaction with a faculty member. It is important that students and faculty have a common understanding of how such complaints may be expressed and resolved. Students with complaints regarding academic matters should initially seek resolution from their faculty adviser, then from their director of graduate studies, and finally from the chair of their degree program. Complaints that remain unresolved may be addressed to any of the deans in a student's school. The final court of appeal for all students in the Graduate School is the dean of the Graduate School.

All complaints regarding academic and professional integrity should be addressed to an associate dean of the Graduate School.

Washington University policies state that members of the university community can expect to be free from discrimination and harassment. Students, faculty, staff and outside organizations working on campus are required to abide by specific policies prohibiting harassment.

An allegation of discrimination or harassment may be appealed to the vice chancellor for human resources, who will determine whether to convene the Title IX Grievance Committee to hear the case. Visit the Discrimination and Harassment page (<https://hr.wustl.edu/items/discrimination-harassment-policy/>) for more information.

## Leaves of Absence

A student may request and be approved for a leave of absence during their regular registration period if they are not registered in absentia. Leaves of absence must be endorsed by the degree program and approved by the Graduate School for up to one year. Extensions must be reapplied.

Approved leaves of absence are not counted as part of a student's program length and will not be approved for semesters beyond the program length, including enrollment extension. While on a leave of absence, the student is not registered and has no student status at Washington University. Students who begin a leave during any semester will be dropped from all course registration for that semester and will receive no course credit for work completed during that semester prior to the leave.

Leaves of absence may be personal or medical. In the case of a medical leave, the student must present authorization from Habif Health and Wellness Center at the beginning and again at the end of the leave. At the end of any leave of absence, a student is reinstated into the Graduate School under the conditions prevailing at the time the leave was granted. Being on leave suspends student status and financial support from the university. Taking a leave may therefore adversely affect loan deferment, visa status, the right to rent university-owned housing, and so on. Most visa types would prevent international students from remaining in the United States while taking a leave of absence; such students should consult the Office for International Students and Scholars (<http://oiss.wustl.edu>) as well as their faculty adviser, their program's director of graduate studies, and perhaps a dean.

Prior to taking a leave of absence, students should consider their need for health insurance coverage. The continuation of student health insurance and access to the Habif Health and Wellness Center depends on such factors as the kind of leave (medical or personal), the length of time the student has already been covered during the current insurance year, and the student's location during the leave. Students should consult the Habif Health and Wellness Center website (<http://shs.wustl.edu/Pages/default.aspx>) for current policies related to leaves of absence; these policies may change annually if insurance carriers change.

## Withdrawals

Students wishing to withdraw from their programs must give notice in writing by filling out the Graduate School's Withdrawal form (<https://graduateschool.wustl.edu/sites/graduateschool.wustl.edu/files/Withdrawal.pdf>). This form

must include the date upon which the withdrawal should be considered effective. Without such information, there may be serious financial repercussions for the student and/or the university.

## Dismissals

A program may wish to dismiss a student for a number of reasons, including willful misrepresentation to gain admission to graduate study, breaches of academic integrity, academic failure, or behavior destructive to the welfare of the academic community. Dismissals are recommended by the degree program and are not final until approved by the Graduate School. Any student who believes their dismissal was undeserved may appeal to the dean of the Graduate School, who may accept or decline the program's recommendation to dismiss the student.

## Interdisciplinarity

### Interdisciplinary Courses

PhD students can discuss with their advisers individual courses available outside of their school that may advance their research or professional goals. A university tuition agreement signed by all of the deans of the university's graduate and professional schools fosters interdisciplinary study across the schools and allows enrollment in classes outside of the student's home school. Many undergraduate and graduate courses are available for graduate student enrollment, subject to the following eligibility guidelines:

- Students must be enrolled full-time in graduate degree programs and have the approval of their faculty adviser or administrative officer to take a course outside of their home school.
- Courses will be open to students outside of the discipline only if the students have met the required prerequisites and have the approval of both of their department and the course instructor.
- Finally, courses in the evening divisions, including University College and its Summer School, are not part of this agreement. Courses that require individualized instruction and/or additional fees (e.g., independent studies, individual music lessons) are also excluded.

### Joint and Dual Degree Programs

The university has set up numerous programs that permit students to earn two graduate and/or professional degrees at the same time. One of these programs includes a PhD:

- Medical Scientist Training Program (MD/PhD in various disciplines)

The Graduate School uses the term *joint degree* to refer to programs in which one or more credit units are counted toward both degrees. The Graduate School uses the term *dual degree* to refer to programs in which no credit units are counted

toward both degrees. Interested students must apply to and be admitted by each degree program separately, but ideally all applications should be made before beginning graduate or professional study. Joint and dual degrees are ordinarily conferred simultaneously, after all of the requirements for both degrees have been met.

Students wishing to pursue joint or dual degrees other than these may be permitted to do so, but such requests are considered on a case-by-case basis.

Admission to an individualized joint degree program between two Graduate School disciplines on the Danforth Campus must be recommended by the directors of graduate studies for both disciplines and approved by the dean of the Graduate School. Admission to an individualized joint degree program involving another school of the university must be recommended by the directors of graduate studies for both disciplines and approved by the deans of both schools. Recommendations should address a variety of academic and administrative concerns, including the timeline for the completion of both degrees and the responsibility for funding the student and remitting the tuition. Students should not undertake study toward an individualized joint degree program until it has been fully approved.

## Graduate Certificates

The certificates offered to full-time students in the Graduate School are all interdisciplinary in nature:

- American Culture Studies (p. 28)
- Data Science in the Humanities (p. 60)
- Early Modern Studies (p. 55)
- Film and Media Studies (p. 101)
- Higher Education (p. 68)
- Language Instruction (p. 153)
- Latin American Studies (p. 116)
- Quantitative Data Analysis (p. 145)
- Translation Studies (p. 55)
- Urban Studies (p. 165)
- Women, Gender, and Sexuality Studies (p. 167)

Graduate certificates are open to students in PhD programs at Washington University, and they require the completion of 15 to 18 credit units. Interested students must fill out an application for admission to a certificate program (PDF) ([http://bulletin.wustl.edu/grad/gsas/phd/academic/Application\\_Certificate\\_Program\\_2016.pdf](http://bulletin.wustl.edu/grad/gsas/phd/academic/Application_Certificate_Program_2016.pdf)) and receive the approval of their degree program's chair, the certificate program's director, and the dean of the Graduate School. The application form is posted on the Graduate School's website. Tuition remission may be available for the credit units required to complete a certificate program if the student's total units do not

exceed 72. Earning a certificate does not increase a student's expected time to degree or amount of Graduate School support. No student will be admitted to, given tuition remission for, or awarded more than one graduate certificate.

## Financial Information

The amounts and vehicles of financial support for graduate students are usually decided by individual schools. Washington University is committed to funding most PhD students for five to six years, depending on the time needed to complete their particular program. Funding typically consists of full tuition remission and 11 to 12 months of a stipend to defray living expenses. Monetary support may come from the university or from outside sources, and it may be administered by an individual faculty member or by the staff of the program or the school.

## Financial Support

### Tuition Scholarships

Scholarships to cover part or all the costs of tuition are available to both new and continuing students. Since the perception of academic merit is the sole criterion for the award of tuition scholarships, such scholarships are not subject to taxation under federal tax law at this time.

### Research Assistantships

Except in unusual cases, research assistantships are available only to doctoral students who have completed at least one full year of graduate study. These positions are generally (but not exclusively) found in the natural and social sciences, and they are offered through departments, committee-run programs and research centers. Research assistantships allow participation in collaborative enterprises of research and in the discipline's community of scholars.

### Traineeships

Many degree programs, especially in the biological and behavioral sciences, fund students by means of traineeships. These positions may be awarded on an annual basis, or they may be renewable for periods of up to three years, subject to satisfactory academic progress. Traineeships frequently emphasize research; however, in the applied social sciences, they may combine theory, research and clinical experience in the field.

### Fellowships

Fellowships, which provide a living stipend, may be awarded to a student by the Graduate School, the student's degree program or the student's adviser. In addition, a student may apply for and win certain fellowships that are awarded directly to the student. These require administration by the Graduate School, which also administers two unique university-wide fellowships: the Chancellor's Graduate Fellowships (<http://>

pages.wustl.edu/cgfp/) and the Spencer T. and Ann W. Olin Fellowships (<http://pages.wustl.edu/olinfellowship/>). These awards provide year-round funding for the student's defined program length. Prospective students must apply for these fellowships at the time of their application for admission, not after they have enrolled at Washington University as graduate students.

## Loans

Federally underwritten loans are another centrally administered resource for students who are U.S. citizens or permanent residents. Unsubsidized Stafford loans can be arranged for graduate students. Applicants for these loans are required to submit the Free Application for Federal Student Aid (FAFSA). The Graduate School determines eligibility and processes loan applications for all PhD students at Washington University. For more information about applying for loans, please visit the Graduate School's Financial Support (<https://graduateschool.wustl.edu/funding-support/>) webpage.

## Financial Costs

### Tuition Charges and Refunds

The maximum tuition fee is the equivalent of 9 semester units. Students who enroll for 9 or more units per semester are automatically regarded as full-time students and are charged a flat full-time rate. Students enrolled for fewer than 9 units are charged on a per-unit basis. The tuition rate is subject to annual change.

A request for the refund of tuition paid by a student who is withdrawing from a degree program should be made by submitting a Withdrawal Form ([https://graduateschool.wustl.edu/sites/graduateschool.wustl.edu/files/Withdrawal\\_Fillable.pdf](https://graduateschool.wustl.edu/sites/graduateschool.wustl.edu/files/Withdrawal_Fillable.pdf)) to the Graduate School office. A request for the refund of tuition paid by a student who is withdrawing from a specific course should be submitted in writing to the Graduate School registrar. The last date of class attendance is ordinarily used in determining the amount that can be refunded. Students withdrawing within the first two weeks of classes will receive a full refund; those withdrawing before the end of the fourth week pay 20%; those withdrawing before the end of the eighth week pay 40%. There is no refund after the eighth week of the semester except for reasons of health. Such reasons must be certified or verified by Habib Health and Wellness Center, in which case the university will make a prorated refund of tuition if notice of withdrawal is received before the end of the 12th week of the semester. Students who have had their full tuition remitted for them by their school or by a third party will not receive any refund.

## Health Fees

All full-time students on the Danforth Campus are charged a mandatory health fee that gives them access to Habib Health and Wellness Center. In addition, they must either enroll in the student health insurance plan or present proof of comparable coverage. Both the health fee and the health insurance premium are subject to annual change. The Graduate School subsidizes both costs for most full-time fully supported students.

There is also a health fee for full-time students in degree programs based on the Medical Campus, and it includes coverage equivalent to a health insurance plan. Details can be found on the Student & Occupational Health Services (<http://wusmhealth.wustl.edu>) website.

## Master's Degrees

There are different ways to earn a master's degree at Washington University:

- Students who have not previously earned a master's degree in the same field as their PhD may earn the Master of Arts (AM) on the way to their PhD. This option is available in some disciplines but not in all of them.
- Students who have not previously earned a master's degree in the same field as their PhD may be awarded an AM for work done in a PhD program that they are leaving without completing. This option is available in some disciplines but not in all of them.
- PhD students may wish to pursue a separate master's degree in a field related to their doctoral study through the Integrated AM (I AM) program. This option is available at the discretion of the department; students should consult with their departments for more information.
- There are a number of Arts & Sciences disciplines that admit students to pursue a terminal master's degree. Half of these are daytime programs for full-time students; these are described by their departments in other sections (p. 27) of this *Bulletin*. The other half of these terminal master's programs are designed primarily for part-time students and offer their classes in the evening; these are described by University College (p. 174) in its section of this *Bulletin*.
- Undergraduate students in Arts & Sciences at Washington University may apply for the accelerated AB/AM program, in which graduation with a Bachelor of Arts (AB) is followed by one year of graduate study leading to the AM. This option is described in the Accelerated AB/AM (p. 23) section of this *Bulletin*.

## Academic Information

### General Requirements for Master of Arts Degrees

The minimum requirement of the Master of Arts degree (AM) is 30 credits.

The master's degree program can require a master's thesis, make the thesis optional, or decline to offer a thesis. A thesis is always required for students who pursue a master's degree outside of their area of study for their intended PhD program. No more than 6 credits toward the terminal AM can be awarded for master's thesis research. No more than 15 units of master's thesis research may be applied to an AM degree earned en route to a PhD program. A master's thesis must be defended before a committee of no fewer than three faculty members. A master's degree without a thesis must include an examination that tests competence in the field of study. Degree programs are free to include additional requirements. Master's students must also maintain satisfactory academic progress and fulfill residence requirements.

#### Registration

Students newly admitted to the Graduate School receive information about creating a WUSTL Key from the university registrar. The WUSTL Key is an account that is used to register for courses online via WebSTAC during open registration periods. All registrations require online approval by the student's faculty adviser and are monitored by the Graduate School.

#### Credit Units

Full-time students register for 9 to 12 units per semester. Master's students who have completed their courses and need additional time to complete other degree requirements will be registered for LGS 9000 Full-time Graduate Research/Study.

#### Courses

To count toward a master's degree, courses must be offered at the graduate level, taken for a grade, and approved in advance by the student's adviser and program as eligible to count toward the student's degree. Depending on the program, graduate-level courses begin with courses numbered in the 400s or 500s. Audited courses and courses taken pass/fail (or credit/no credit) cannot be counted toward the degree. Students should consult their advisers regarding these options.

#### Grades

Credit-conferring grades for students in the Graduate School are as follows: A, outstanding; B, good; C, conditional (an A, B or C grade may be modified by a plus or minus); S, satisfactory; and U, unsatisfactory (this is used almost exclusively for credit units earned by doing research). Other grades are F, failing; N, not

submitted yet; X, final examination missed; and I, incomplete. The mark of I becomes a permanent part of the student's record after the lapse of one calendar year unless the program in which the mark was assigned requests an extension of time.

The Graduate School uses a 4-point scale for calculating grade point averages, with A = 4, B = 3, and C = 2. A plus adds 0.3 to the value of a grade, whereas a minus subtracts 0.3 from the value of a grade.

#### Retaking a Course

Graduate students may be allowed to retake a course once with prior permission from their department or program. The department can refuse the student's request. If permission to retake a course is granted, both registrations will show on the transcript. The grade for the first enrollment will always be replaced by the symbol R. Whether or not it is lower than or equal to the original grade, the grade for the second enrollment will be used to calculate the grade-point average. The grade for the first enrollment will not be replaced with an R until the second enrollment is completed and its grade has posted. A student who retakes a course without prior permission might not receive permission retroactively. No student may use the retake option to replace a grade received as a sanction for violation of the Academic Integrity Policy. The R option may be invoked only once per course, and the original grade option must be retained.

#### Transferred Credits

A maximum of 6 credit units may ordinarily be transferred from an institution of recognized graduate standing toward the fulfillment of requirements for the master's degree from Washington University, except that a maximum of 15 credit units may be transferred toward the fulfillment of the requirements for the degree Master of Arts in Education (MAEd) from institutions that have entered into special cooperative agreements with Washington University for this purpose.

Applications to transfer credits for a master's degree are not ordinarily approved until one full semester of study (12 credit units) has been completed at Washington University. Academic credits applied to complete requirements for the bachelor's degree are ordinarily not transferable toward the fulfillment of advanced degree requirements at Washington University. Likewise, academic credits counted toward requirements for any completed graduate degree are ordinarily not transferable toward a subsequent degree of equivalent or lower level.

#### Shared Credits With the PhD

The doctorate-granting department will determine a standardized practice to identify which courses will count toward the doctoral degree. Departments will demonstrate consistency with regard to which and how many units will apply from each master's discipline.



## Integrated Master of Arts Program (I AM)

Students admitted to a qualifying Arts & Sciences PhD program may be eligible to apply for admission to an Integrated AM program in a field related to their PhD research. A full list of participating departments is available on the Graduate School website. The I AM is a research master's degree that should directly inform the dissertation and therefore is designed for students who have a clear vision for their dissertation from an early point in their graduate career. Participation in an I AM does not extend the time to degree or include additional funding. Students will most often apply and be admitted to their I AM program during their second or third semester of PhD study.

The Graduate School minimum requirements for an I AM include 30 units of academic work. A maximum of 15 units may be used toward thesis research. All students engaging in the master's program will complete a minimum of five or six core courses as defined by the department; this will be consistent with requirements for all graduate students completing a master's degree in that department. The I AM will culminate in a thesis chaired by a tenured or tenure-track faculty member within the AM-granting department. This individual will ideally then serve as the outside committee member for the student's dissertation committee. The thesis topic, research, and final product should be additive to the dissertation.

During participation in the I AM program, students will concurrently enroll in course work specific to both their AM and PhD programs. The full degree requirements for the I AM should be completed by the end of the third year of the overall graduate experience.

Students who pursue an I AM will be ineligible to earn the master's degree in their PhD field as well as any additional certificates.

## Satisfactory Academic Progress

Satisfactory academic progress is monitored by the Graduate School as well as the degree program. Failure to maintain satisfactory academic progress may result in immediate dismissal or in placement on academic probation for the ensuing year. Most financial awards and all federally funded awards are contingent on the maintenance of satisfactory academic progress. Moreover, satisfactory academic progress is a prerequisite for service on any committee authorized by the Graduate School. The following are minimal standards of satisfactory academic progress for master's students; degree programs may set stricter standards but must not relax these.

1. Students are expected to proceed at a pace appropriate to enable them to finish within the time limits customary in their degree program. At most, students enrolled in master's degree programs have four calendar years, dated from their first registration in a graduate degree program at Washington University, to complete degree requirements.
2. Students are expected to maintain a cumulative grade-point average of at least 3.0 on a 4.0 scale in courses that count toward their credit units. Thus, among courses of equal weight, each grade of C must be balanced by at least one A. (Note that plus and minus marks alter the numerical value of a letter grade.)
3. Students are expected not to carry at one time any more than 9 credit units for which the grades of I (incomplete), X (final examination missed), or N (not yet submitted) are recorded. The Graduate School may deny a student with more than 9 unfinished credits permission to register.

## Residence Requirement

The residence requirement for master's degree students is that each student must spend at least one academic year registered for full-time credits (9 to 12 credits in the fall followed by 9 to 12 credits in the spring) at Washington University. Any exceptions to this requirement must be approved by the dean of the Graduate School. All daytime programs prefer that students remain full-time and in residence throughout their work toward the degree.

## Thesis

The thesis topic is subject to approval by the student's master's faculty adviser and by the chair of the degree program. As soon as the thesis topic has been approved (but no later than six months before the thesis defense is likely to occur), students should submit the Title, Scope and Procedure form (<http://graduateschool.wustl.edu/forms/>) to the Graduate School. It must be signed by the three-member committee before whom the student will defend the thesis as well as by the chair of the degree program. At least three members of the thesis committee must be Washington University faculty; at least two of them must be appointed in the student's master's degree program; and at least two of them (not necessarily the same two) must be tenured or tenure-track, including the committee chair or co-chair. Exceptions must be approved by the dean of the Graduate School or their designee.

A Master's Thesis Guide and a template (<http://graduateschool.wustl.edu/guides-0/>) that provide instructions regarding the format of the thesis are available on the Graduate School's website; both should be read carefully at every stage of thesis preparation.

The Graduate School requires each student to make the full text of the thesis available to the committee members for their review at least one week before the defense. Most degree programs require two or more weeks for the review period; students should check with their faculty.

After the defense, the student must submit an electronic copy of the thesis online to the Graduate School. The degree program is responsible for delivering the Master's Approval form, signed by the committee members at the defense and then by the program chair, to the Graduate School. Students who defend their theses successfully have not completed their master's requirements; they finish earning the degree only when their thesis submission has been accepted by the Graduate School.

## Graduation Information

Students are responsible for filing an Intent to Graduate form in order to have their earned master's degree conferred. The Intent to Graduate form is available online through WebSTAC (<https://acadinfo.wustl.edu>). Deadlines for filing an Intent to Graduate are listed on the Graduate School's website. No degree will be awarded if this form has not been filed. Students who do not complete their degree requirements by their intended graduation date must refile for the next graduation date.

## Specific Circumstances

### Changes in Program of Study

Students are usually admitted to the Graduate School to study toward specific degrees. Therefore, a change in the degree objective (e.g., from AM to PhD) is subject to the approval of both the student's program and the Graduate School. A request for a change in the subject of study (e.g., from economics to history) requires the approval of both programs concerned as well as that of the Graduate School. Students may be required to fill out a new application for admission before making such changes, but they will not be charged a second application fee.

### Student Grievance Procedures

From time to time, students may feel that they have legitimate complaints regarding academic matters or an interaction with a faculty member. It is important that students and faculty have a common understanding of how such complaints may be expressed and resolved. Students with complaints regarding academic matters should initially seek resolution from their faculty adviser, then from their director of graduate studies, and finally from the chair of their degree program. Complaints that remain unresolved may be addressed to any of the deans in a student's school. The final court of appeal for all students in the Graduate School is the dean of the Graduate School.

All complaints regarding academic and professional integrity should be addressed to an associate dean of the Graduate School.

Washington University policies state that members of the university community can expect to be free from discrimination and harassment. Students, faculty, staff and outside organizations working on campus are required to abide by specific policies prohibiting harassment.

An allegation of discrimination or harassment may be appealed to the vice chancellor for human resources, who will determine whether to convene the Title IX Grievance Committee to hear the case. Visit the Discrimination and Harassment page (<https://hr.wustl.edu/items/discrimination-harassment-policy/>) for more information.

## Leaves of Absence

Students who wish to suspend their graduate study should apply for a leave of absence. A student's application for a leave of absence must be endorsed by the degree program and then approved by the Graduate School.

Such a leave may be personal or medical. In the case of a medical leave, the student must present authorization from Habif Health and Wellness Center at both the beginning and end of the leave. At the end of a leave of absence, a student is reinstated into the Graduate School under the conditions prevailing at the time the leave was granted. Being on leave suspends full-time student status and financial support from the university. Taking a leave may therefore adversely affect loan deferment, visa status, the right to rent university-owned housing, and so on. Most visa types would prevent international students from remaining in the United States while taking a leave of absence; such students should consult the Office for International Students and Scholars (<http://oiss.wustl.edu>) as well as their faculty adviser, their program's director of graduate studies, and perhaps a dean.

Prior to taking a leave of absence, students should consider their need for health insurance coverage. The continuation of student health insurance and access to Habif Health and Wellness Center depends on such factors as the kind of leave (medical or personal), the length of time the student has already been covered during the current insurance year, and the student's location during the leave. Students should consult the Habif Health and Wellness Center (<http://shs.wustl.edu/>) website for current policies with regard to leaves of absence; these policies may change annually if insurance carriers change.

## Withdrawals

Students wishing to withdraw from their programs must give notice in writing by filling out the Graduate School's Withdrawal form (<https://graduateschool.wustl.edu/sites/graduateschool.wustl.edu/files/Withdrawal.pdf>). This form must include the date upon which the withdrawal should be considered effective. Without such information, there may be serious financial repercussions for the student and/or the university.

## Dismissals

A program may wish to dismiss a student for a number of reasons, including willful misrepresentation to gain admission to graduate study, breaches of academic integrity, academic failure, or behavior destructive to the welfare of the academic community. Dismissals are recommended by the degree

program and are not final until approved by the Graduate School. Any student who believes their dismissal was undeserved may appeal to the dean of the Graduate School, who may accept or decline the program's recommendation to dismiss the student.

## Interdisciplinarity

### Joint and Dual Degree Programs

The university has set up numerous programs that permit students to earn two graduate and/or professional degrees at the same time. Five of these programs include an AM degree:

- Joint Master of Social Work / Master of Arts in Jewish Studies
- Joint Master of Social Work / Master of Arts in Education
- Joint Master of Business Administration / Master of Arts in East Asian Studies
- Joint Juris Doctoris / Master of Arts in East Asian Studies
- Master's Program for Medical Students (MD/AM in Biology & Biomedical Sciences)

The Graduate School uses the term *joint degree* to refer to programs in which one or more credit units are counted toward both degrees. The Graduate School uses the term *dual degree* to refer to programs in which no credit units are counted toward both degrees. Interested students must apply to and be admitted by each degree program separately, but ideally all applications should be made before beginning graduate or professional study. Joint and dual degrees are ordinarily conferred simultaneously, after all requirements for both degrees have been met. For details of the programs listed above, students should consult the websites of the two disciplines.

### Accelerated AB/AM Program

The Accelerated AB/AM program allows qualified Washington University undergraduates to complete a Master of Arts (AM) degree in a one-year accelerated program after completing a Bachelor of Arts (AB) degree. The undergraduate and graduate degrees are awarded sequentially, with admission to the master's degree program, if approved, occurring during the fall semester following the completion of the undergraduate degree during the preceding December, May or August. The application deadline is August 1; applications may be submitted at any time during the senior year up to the deadline. The GRE is not required. The program is available only to students currently in their senior year and only for continuous enrollment the next year. There is no option for deferred admissions.

To complete an AM in one year, students may apply five courses taken at the 400 level or above as an undergraduate (with a maximum of 16 units) toward master's degree programs that require 36 or more units for completion. For master's programs that require fewer than 36 units, three courses at the 400 level or above (with a maximum of 12 units) may be applied. Master's programs that require more than 36 units may require

an additional semester or summer of enrollment. Undergraduate courses must be acceptable to the department or program offering the master's degree and must be completed with a final grade of B or higher. All admissions are provisional until the successful completion of the AB. Some departments may not participate in this program, and some departments that do not otherwise offer a master's degree may provide this opportunity to Washington University undergraduates. Please consult the home department and the Information for Accelerated AB/AM Applicants (PDF) ([http://bulletin.wustl.edu/grad/gsas/masters/academic/Acelerated\\_AB\\_AM\\_Program.pdf](http://bulletin.wustl.edu/grad/gsas/masters/academic/Acelerated_AB_AM_Program.pdf)) for more detailed information.

The actual awarding of each degree is contingent on the successful completion of all requirements for that degree. The application for admission must be made to the department, which forwards the application and the department's recommendation for admission to the Graduate School. There is no application fee. Students accepted into the program will retain their student ID numbers and will not need to replace their ID cards. In every other respect, they will be treated as new students in the Graduate School and should familiarize themselves with the relevant sections of this *Bulletin*.

## Financial Information

Master's degree programs vary considerably in the extent to which they are eligible for financial support from the Graduate School or degree program. Typical awards for day students include scholarships for part or all of their tuition charges. Part-time employment and student loans are possible sources of support.

## Financial Support

### Tuition Scholarships

Scholarships to cover part or all the costs of tuition are available to both new and continuing students. Since the perception of academic merit is the sole criterion for the award of tuition scholarships, such scholarships are not subject to taxation under federal tax law at this time.

### Loans

Federally underwritten loans are another resource for students who are U.S. citizens or permanent residents. Unsubsidized Stafford loans can be arranged for graduate students. Applicants for these loans are required to submit the Free Application for Federal Student Aid (FAFSA). The Graduate School determines eligibility and processes loan applications for all full-time master's students in daytime programs. For more information about applying for loans, please visit the Graduate School's Financial Support (<https://graduateschool.wustl.edu/funding-support/>) webpage.

## Financial Costs

### Tuition Charges and Refunds

The maximum tuition fee is the equivalent of 9 semester units. Students who enroll for 9 or more units per semester are automatically regarded as full-time students and are charged a flat full-time rate. Students enrolled for fewer than 9 units are charged on a per-unit basis. The tuition rate is subject to annual change.

Requests for refund of tuition paid by a student who is withdrawing from a degree program should be made by submitting a Withdrawal Form (<https://graduateschool.wustl.edu/sites/graduateschool.wustl.edu/files/Withdrawal.pdf>) to the Graduate School office. Requests for refund of tuition paid by a student who is withdrawing from a specific course should be submitted in writing to the Graduate School registrar. The last date of class attendance is ordinarily used in determining the amount that can be refunded. Students withdrawing within the first two weeks of classes will receive a full refund; those withdrawing before the end of the fourth week pay 20%; those withdrawing before the end of the eighth week pay 40%. There is no refund after the eighth week of the semester except for reasons of health. Such reasons must be certified or verified by Habif Health and Wellness Center, in which case the university will make a prorated refund of tuition if notice of withdrawal is received before the end of the 12th week of the semester. Students who have had their full tuition remitted for them by their school or by a third party will not receive any refund.

### Health Fees

All full-time students in Arts & Sciences are charged a mandatory health fee that gives them access to Habif Health and Wellness Center. In addition, they must either enroll in the student health insurance plan or present proof of comparable coverage. Both the health fee and the health insurance premium are subject to annual change.

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## American Culture Studies

The **Graduate Certificate in American Culture Studies** (AMCS) enables doctoral students to develop multidisciplinary expertise and encourages them to bring that added competence to bear in dissertation research that, while satisfying the demands of their principal disciplines, is broad-based and informed by studies from across the humanities and the social sciences.

AMCS brings together a community of graduate students and faculty with overlapping interests in American topics. Through formal and informal intellectual exchange, they share knowledge, methods and ideas across the boundaries that define the traditional academic disciplines. This intellectual community promotes the give-and-take of ideas, making graduate study more stimulating and graduate research more original and creative.

Students who satisfy certificate requirements will receive the Graduate Certificate in American Culture Studies along with the award of the PhD. This is one of several interdisciplinary certificates offered by the Graduate School. The certificate helps its holders to build academic careers — including careers that involve interdisciplinary teaching — and to develop distinctive research profiles.

Contact:	Karen Skinner
Phone:	314-935-6994
Email:	k.skinner@wustl.edu
Website:	<a href="https://amcs.wustl.edu/phd-certificate">https://amcs.wustl.edu/phd-certificate</a>

## Faculty

The American Culture Studies program is enriched by its diverse community of faculty, lecturers, students and staff. Please visit our AMCS Directory webpage (<https://amcs.wustl.edu/people/88/>) for a description and list of our teaching and affiliated faculty and other important members of our community.

## Degree Requirements

### Graduate Certificate in American Culture Studies

The Graduate Certificate in American Culture Studies is awarded to students who complete the PhD in a department of the Graduate School and who satisfy the following requirements:

- Complete 15 credits of course work, structured as follows and in consultation/cooperation with the student and their home department:
  - The core seminar (3 credits), Introduction to American Culture Studies (AMCS 645).
  - Two multidisciplinary courses (6 credits) on American topics (400 level or higher) designed in explicitly multidisciplinary terms. Courses that satisfy this requirement will be determined in consultation with the graduate director.
  - Two extradepartmental courses (6 credits) on American topics (400 level or higher) based in fields that complement course work in the home department, to be determined in consultation with the graduate director.
- Routine consultation with the AMCS Director of Graduate Studies (DGS), in addition to consultation with the student's principal PhD adviser.
- Completion of a PhD dissertation in the home department, with the AMCS faculty adviser often serving as one of the "outside" readers on the oral defense committee and the dissertation defense committee.
- Maintenance of good standing within the AMCS program through regular participation in program functions and events.
  - Americanist Forums. Attendance at the monthly colloquium series (held on Thursdays from 5-6:30 p.m.) is expected, with exceptions related to residency, leaves, fieldwork and dissertation research.

Students pursuing the Graduate Certificate in AMCS have the opportunity to teach a course in AMCS. To be eligible to teach for the AMCS department, students must have completed the certificate and mentored teaching experiences required by their home departments. Interested students should contact the AMCS DGS to learn about the process for proposing a course. Course planning should begin well in advance; we recommend that students begin talking with the AMCS DGS and their PhD adviser at least one year prior to the semester in which they hope to teach.

For more information about program activities and requirements, please visit our Graduate Studies (<https://amcs.wustl.edu/phd-certificate/>) webpage.

## Anthropology

The graduate program in the Department of Anthropology at Washington University is a PhD program designed to educate and develop scholars and researchers who study the human condition through time and across cultures. Our graduates apply these skills to academics, business, government and nongovernmental jobs and careers. Although candidates may receive an AM degree during the course of their study, the department does not admit students seeking a terminal master's degree. The anthropology department has a strong tradition of

graduate student satisfaction and close mentoring by faculty advisers. In addition, graduates of the Washington University anthropology PhD program have a solid history of placement in highly desirable academic and nonacademic positions.

The department has a strong three-field approach, with active programs in archaeology, sociocultural anthropology, and biological anthropology. Program strengths in archaeology include the origins of agriculture and pastoralism, paleoethnobotany, zooarchaeology, geoarchaeology, landscape archaeology and environmental archaeology. Sociocultural anthropology foci include politics, pluralism and religion, indigenous political movements, the politics of gender and sexuality, fertility and population, global health and the environment, and medical anthropology. Program strengths in biological anthropology include human and primate evolution, the ecology and conservation of modern primates, human physiology, biological variation in living human populations, quantitative studies of morphology and genetics, and human life history.

## Contact Information

**Email:** Crickette Sanz at [csanz@wustl.edu](mailto:csanz@wustl.edu) or Kirsten Jacobsen at [kjacobsen@wustl.edu](mailto:kjacobsen@wustl.edu)

**Phone:** 314-935-7770 or 314-935-5252

**Website:** <http://anthropology.artsci.wustl.edu/graduate>

## Faculty

### Chair

**T.R. Kidder** (<https://anthropology.wustl.edu/people/tristram-r-kidder/>)

Edward S. and Tedi Macias Professor in Arts & Sciences  
PhD, Harvard University

### Endowed Professors

**John Baugh** (<https://anthropology.wustl.edu/people/john-baugh/>)

Margaret Bush Wilson Professor in Arts & Sciences  
PhD, University of Pennsylvania

**John R. Bowen** (<https://anthropology.wustl.edu/people/john-bowen/>)

Dunbar-Van Cleve Professor in Arts & Sciences  
PhD, University of Chicago

**Pascal R. Boyer** (<https://anthropology.wustl.edu/people/pascal-boyer/>)

Henry Luce Professor of Collective and Individual Memory  
PhD, University of Paris–Nanterre

**Fiona Marshall** (<https://anthropology.wustl.edu/people/fiona-marshall/>)

James W. and Jean L. Davis Professor in Arts & Sciences  
PhD, University of California, Berkeley

**Richard J. Smith** (<https://anthropology.wustl.edu/people/richard-j-smith/>)

Ralph E. Morrow Distinguished University Professor  
PhD, Yale University

**James V. Wertsch** (<https://anthropology.wustl.edu/people/james-wertsch/>)

Marshall S. Snow Professor in Arts & Sciences  
PhD, University of Chicago

## Professors

**Lois Beck** (<https://anthropology.wustl.edu/people/lois-beck/>)  
PhD, University of Chicago

**Geoff Childs** (<https://anthropology.wustl.edu/people/geoff-childs/>)

PhD, Indiana University

**Michael Frachetti** (<https://anthropology.wustl.edu/people/michael-frachetti/>)

PhD, University of Pennsylvania

**David Freidel** (<https://anthropology.wustl.edu/people/david-freidel/>)

PhD, Harvard University

**Rebecca J. Lester** (<https://anthropology.wustl.edu/people/rebecca-lester/>)

PhD, University of California, San Diego

**Crickette Sanz** (<https://anthropology.wustl.edu/people/crickette-sanz/>)

PhD, Washington University

**Carolyn Sargent** (<https://anthropology.wustl.edu/people/carolyn-sargent/>)

PhD, Michigan State University

**Glenn D. Stone** (<https://anthropology.wustl.edu/people/glenn-davis-stone/>)

PhD, University of Arizona

**David Strait** (<https://anthropology.wustl.edu/people/david-strait/>)

PhD, State University of New York–Stony Brook

## Associate Professors

**Bret D. Gustafson** (<https://anthropology.wustl.edu/people/bret-gustafson/>)

PhD, Harvard University

**Xinyi Liu** (<https://anthropology.wustl.edu/people/xinyi-liu/>)

PhD, University of Cambridge

**Shanti A. Parikh** (<https://anthropology.wustl.edu/people/shanti-parikh/>)

PhD, Yale University

**Elizabeth A. Quinn** (<https://anthropology.wustl.edu/people/ea-quinn/>)

PhD, Northwestern University

## Assistant Professors

**Sarah Baitzel** (<https://anthropology.wustl.edu/people/sarah-baitzel/>)

PhD, University of California, San Diego

**Talia Dan-Cohen** (<https://anthropology.wustl.edu/people/talia-dan-cohen/>)

PhD, Princeton University

**Theresa Gildner**

PhD, University of Oregon

**Krista Milich** (<https://anthropology.wustl.edu/people/krista-milich/>)

PhD, University of Illinois at Urbana-Champaign

**Natalie Mueller**

PhD, Washington University

**Helina Woldekiros** (<https://anthropology.wustl.edu/people/helina-woldekiros/>)

PhD, Washington University

**Emily Wroblewski** (<https://anthropology.wustl.edu/people/emily-wroblewski/>)

PhD, University of Minnesota

## Lecturers

**David Ansari**

PhD, University of Chicago

**Anna Jacobsen** (<https://anthropology.wustl.edu/people/anna-jacobsen/>)

PhD, Washington University in St. Louis

**Johnelle Lamarque** (<https://anthropology.wustl.edu/people/johnelle-lamarque/>)

PhD, Rutgers University

**Jake Lulewicz** (<https://anthropology.wustl.edu/people/jacob-lulewicz/>)

PhD, University of Georgia

**Andrea Murray** (<https://anthropology.wustl.edu/people/andrea-murray/>)

PhD, Harvard University

## Professors Emeriti

**David L. Browman** (<https://anthropology.wustl.edu/people/david-browman/>)

PhD, Harvard University

**Robert L. Canfield** (<https://anthropology.wustl.edu/people/robert-canfield/>)

PhD, University of Michigan

**Pedro C. Cavalcanti** (<https://anthropology.wustl.edu/people/pedro-c-cavalcanti/>)

PhD, University of Warsaw

**James M. Cheverud** (<https://anthropology.wustl.edu/people/james-cheverud/>)

PhD, University of Wisconsin-Madison

**Glenn C. Conroy** (<https://anthropology.wustl.edu/people/glenn-conroy/>)

PhD, Yale University

**Gayle J. Fritz** (<https://anthropology.wustl.edu/people/gayle-fritz/>)

PhD, University of North Carolina at Chapel Hill

**G. Edward Montgomery**

PhD, Columbia University

**Jane Phillips-Conroy** (<https://anthropology.wustl.edu/people/jane-phillips-conroy/>)

PhD, New York University

**Erik Trinkaus** (<https://anthropology.wustl.edu/people/erik-trinkaus/>)

Mary Tileston Hemenway Professor in Arts & Sciences

PhD, University of Pennsylvania

**Patty Jo Watson** (<https://anthropology.wustl.edu/people/patty-jo-watson/>)

Edward Mallinckrodt Distinguished University Professor Emerita

PhD, University of Chicago

## Degree Requirements

### Universal Departmental Requirements

The following is an abbreviated list of requirements for the PhD in anthropology. Each subdiscipline also has its own additional guidelines and requirements. A more complete description of the requirements (including additional subdisciplinary requirements) can be found in the Graduate Student Handbook (PDF) ([http://bulletin.wustl.edu/grad/gsas/anthro/Anthropology\\_Graduate\\_Handbook\\_2021-22.pdf](http://bulletin.wustl.edu/grad/gsas/anthro/Anthropology_Graduate_Handbook_2021-22.pdf)). All students in the PhD program are expected to satisfy the academic performance requirements of the Graduate School, which can be found in the General Requirements (p. 16) section of this *Bulletin*. Similarly, all subdisciplinary requirements are in addition to those set out here for the department as a whole.

## Degree Length and Course Units

Students are expected to complete the degree in six years. All students must earn a minimum of 60 units of graduate-level course work credit for the PhD, but they must not exceed 72 units of credit. A typical semester course load for the first year of study is 12 units (i.e., four 3-credit courses per semester). The semester course load for the second and third years is typically 9 units. Graduate students must take a minimum of 9 units of credit to be considered full-time by the Graduate School. Most students will meet the 60-unit requirement by the end of the third year, but they must still maintain full-time status throughout the PhD program.

## Master's Degree

Students are expected to receive their master of arts (MA) degree by the end of their second year or fourth semester of full-time study. The requirements for the MA in anthropology are as follows:

1. **Theory requirement.** All students are required to take Anthro 472 Social Theory and Anthropology during their first year. Under special circumstances, this requirement may be delayed or waived by petitioning the departmental faculty. This request should be initiated through the student's adviser.
2. **Two subdisciplinary course requirements.** Graduate students earning a PhD in anthropology are expected to have familiarity across the subdisciplines of anthropology. To this end, all students must complete at least one course taught by a faculty member of the anthropology department in each of the two subdisciplines other than their own; Anthro 472 may satisfy the sociocultural requirement. Courses taken in other subdisciplines should strengthen the student's understanding of the subfield, complement their research, and, ideally, enhance their ability to teach across subfields. Students with good cause to substitute prior extensive course work in the subdiscipline — especially in the context of a master's degree from another university — for one or both of the other subdisciplinary requirements may petition the relevant subdisciplinary faculty to do so.
3. **Courses with six faculty.** All graduate students are required to have had courses with at least six different departmental faculty members. Team-taught courses may count for both faculty members.
4. **Credit units.** The anthropology department requires 36 credit units for the award of an MA degree without a thesis.
5. **Petition for the award of the master's degree.** Once a student has completed all requirements for the MA degree, the student and their adviser submit a petition to the chair; the chair circulates the petition to the entire faculty and reports the successful completion of requirements to the Graduate School. This petition should include documentation of the satisfactory completion of all of the



Graduate School requirements (including cumulative credits, thesis [if applicable], and grade-point average), of the other requirements in this list, and of any special requirements set by the student's subdiscipline.

## Doctoral Candidacy

Although the Department of Anthropology only accepts students who wish to pursue the PhD, students are not officially admitted to candidacy for the PhD immediately upon entry into the program. Admittance to candidacy for the PhD program requires the successful completion of the requirements of the MA degree as well as the of requirements listed below. Continuation for the PhD requires that the student be advanced to doctoral candidacy. The defense of the doctoral proposal and admission to doctoral candidacy are expected by the end of the third year.

1. **Credit units.** Students must have completed 48 units before filing the petition to advance to candidacy.
2. **Forming the Doctoral Research Advisory Committee.** Students are encouraged to work with a variety of faculty while shaping their dissertation proposal. Prior to scheduling their dissertation proposal defense during their third year, students should formally assemble a Doctoral Research Advisory Committee (i.e., a Doctoral Committee) in consultation with their adviser. This committee must consist of a minimum of three full-time tenured or tenure-track members of the anthropology faculty, who must approve the dissertation proposal defense and also sign — along with the department chair — the Notice of Title, Scope, and Procedure of Dissertation. This committee typically forms the basis of the Dissertation Defense Committee.
3. **Student-specific requirements for doctoral candidacy.** Prior to admission to candidacy, students may be asked by their committees to fulfill additional requirements that are directly relevant to their doctoral dissertation research. These may include a foreign language or specialized training outside of the anthropology department in areas such as statistics, computer programming or laboratory techniques. Students will be formally notified by their adviser of such additional requirements.
4. **Defense of the doctoral proposal.** All students must defend a doctoral proposal prior to admission to PhD candidacy. PhD proposal defenses should be carried out by December 15 of the student's third year, and they must be carried out no later than the end of the third year. Proposals must be defended before a faculty committee consisting of a minimum of three full-time tenured or tenure-track members of the anthropology faculty (refer to "Forming the Doctoral Research Advisory Committee" above).
5. **Petition for admission to doctoral candidacy.** After a student's doctoral proposal has been successfully defended and after all other requirements set by the Graduate School, the Department of Anthropology, the subdiscipline, and the

student's committee have been met, the student and their adviser should submit a petition to the chair for advancement to candidacy; the chair will then inform the entire faculty and report the successful advancement to the Graduate School.

## Mentored Teaching Experience

As part of the training and professionalization of graduate students in anthropology, the department requires all students to participate in a minimum of five Mentored Teaching Experiences (MTEs). All students participating in the MTEs are required to attend the teaching orientation offered by the Washington University Teaching Center during the summer after their first year of graduate study. First-year students will not participate in an MTE, but they subsequently will complete at least five MTEs during years two through six. All teaching for the MTEs must be done in the anthropology department, and students will register under LGS 600 during the semesters in which they complete MTEs.

## The Doctoral Dissertation

In addition to the general guidelines below, specific details about timelines for each subdiscipline can be found in the Graduate Student Handbook (PDF) ([http://bulletin.wustl.edu/grad/gsas/anthro/Anthropology\\_Graduate\\_Handbook.pdf](http://bulletin.wustl.edu/grad/gsas/anthro/Anthropology_Graduate_Handbook.pdf)).

In all cases, the dissertation must constitute an integrated, coherent work, with parts that are logically connected. It must have a written introductory chapter that sets forth the general theme and core questions of the dissertation research and that explains the relationship among the constituent chapters or parts. The introduction will typically include, as is appropriate to the discipline, a review of the literature relevant to the dissertation; an explanation of theories, methods and/or procedures utilized by the author; and a summary discussion of the contribution of the dissertation project to knowledge in the field. In its final deposited form, the dissertation must constitute an archivable product that meets the standards prescribed by the university.

The dissertation may consist (in whole or in part) of co-authored chapters and articles, but the candidate must be a major contributor to the research and writing of any such papers and must describe their ideas, individual efforts, and contributions to the larger work. To be in compliance with the university's policy on plagiarism and academic integrity, a dissertation that incorporates co-authored work must also include in its introduction an explanation of the role of the candidate in the research and in the writing of the co-authored work.

Whether this dissertation format is appropriate for a given dissertation in the Department of Anthropology (within a subdiscipline that accepts such a dissertation) must be determined a priori by the student and their doctoral committee. Should it be deemed appropriate, the dissertation must have an introductory chapter that provides the theme and core questions of the dissertation research and that explains the relationships

between the constituent chapters and parts; it must also have a concluding chapter that brings together the information and ideas expressed in the thesis, relates them to the introduction, and shows how they constitute a coherent whole.

If a dissertation includes previously published materials (authored or co-authored), the candidate must provide a full referencing of when and where individual papers have been published. Because prior publication and multiple authorship have implications with respect to copyright, PhD candidates should discuss copyright with advisers and obtain copyright clearance from any co-authors well in advance of defending the dissertation. Written permission must be obtained in order to include articles copyrighted by others within the dissertation.

It is the responsibility of the student and the student's dissertation committee to ensure that the dissertation meets all requirements regarding authorship, academic integrity, and copyright, as here outlined.

## The Dissertation Defense

Prior to submitting the final dissertation to the Graduate School, the student must successfully defend their dissertation in an oral examination before a committee approved by the Graduate School.

In addition to the general guidelines below, specific details about timelines and procedures for each subdiscipline can be found in the Graduate Student Handbook (PDF) ([http://bulletin.wustl.edu/grad/gsas/anthro/Anthropology\\_Graduate\\_Handbook.pdf](http://bulletin.wustl.edu/grad/gsas/anthro/Anthropology_Graduate_Handbook.pdf)).

**Committee approval.** The examining committee consists of at least five members, who normally meet two independent criteria:

- Four of the five must be tenured or tenure-track Washington University faculty; one of these four may be a member of the emeritus faculty. The fifth member must have a doctoral degree and an active research program, whether at Washington University, at another university, in government or in industry.
- Three of the five must come from the student's degree program (i.e., anthropology); at least one of the five must not.

All committees must be approved by the dean of the Graduate School or by their designee.

**Procedure.** Attendance by a minimum of four members of the Dissertation Defense Committee, including the committee chair and an outside member, is required for the defense to take place. This provision is designed to permit the defense to proceed in case of a situation that unexpectedly prevents one of the five members from attending. Students should not plan in advance to have only four members in attendance; if one of those four cannot attend, the defense must be rescheduled. Note that the absence of all outside members or of the committee chair would necessitate rescheduling the defense.

## Submission of the Dissertation

Students who defend their dissertations successfully have not completed their PhD requirements; they finish earning the degree only when their dissertation submission has been accepted by the Graduate School. The exact dates for the deadline to submit the dissertation to the Graduate School are set yearly.

## Specific Subdiscipline Requirements

Please consult the Graduate Student Handbook (PDF) ([http://bulletin.wustl.edu/grad/gsas/anthro/Anthropology\\_Graduate\\_Handbook.pdf](http://bulletin.wustl.edu/grad/gsas/anthro/Anthropology_Graduate_Handbook.pdf)) for more information regarding specific subfield requirements.

## Art History and Archaeology

The Department of Art History and Archaeology offers the degrees of **Master of Arts (AM)** and **Doctor of Philosophy (PhD)**. Particular areas of strength include ancient art, European art of the Renaissance and early modern periods, Asian art, and modern and contemporary art of Europe and the Americas. The size of our graduate program ensures that our students receive an exceptional level of advising and mentoring. Every student has a faculty adviser; the research of PhD students is supervised by a Research Advisory Committee, a core group of three members of the faculty. PhD students gain teaching experience within the department or in other programs (as a mentored teaching experience or as instructors of record) as part of their professional preparation.

Our faculty prepares students to acquire skills in empirical and theoretical methods in art history; museum, archival and site research; visual and textual analysis; and descriptive and analytic writing. Students also take advantage of curatorial or research internships at the university's Kemper Art Museum, the Saint Louis Art Museum and other local institutions, as well as art museums outside the region. The department supports students' professional development and research projects through funded field trips to major art centers and financial subvention of travel for research and presentation of conference papers. Such education and support prepares our students for a variety of professional opportunities at the highest level.

Students with a PhD from the department go on to teaching appointments in colleges and universities; positions as curators, registrars and educators in art museums and university administration; and jobs with auction houses, arts publications and art dealers. Students with the AM degree from the department have pursued doctoral studies at Washington University or in other PhD programs, and they have also taken a variety of positions in arts journalism, art libraries, art advising, secondary school teaching and commercial art galleries.

Phone: 314-935-5270  
Website: <https://arthistory.wustl.edu/>

## Faculty

### Chair

**Elizabeth C. Childs** (<http://arthistory.artsci.wustl.edu/people/elizabeth-c-childs/>)

Etta and Mark Steinberg Professor of Art History  
PhD, Columbia University

### Endowed Professors

**Claudia Swan** (<https://arthistory.wustl.edu/people/claudia-swan/>)

Mark Steinberg Weil Professor in Art History & Archaeology  
PhD, Columbia University

**William E. Wallace** (<http://arthistory.artsci.wustl.edu/people/william-wallace/>)

Barbara Murphy Bryant Distinguished Professor of Art History  
PhD, Columbia University

### Professors

**John Klein** (<http://arthistory.artsci.wustl.edu/people/john-klein/>)

PhD, Columbia University

**Angela Miller** (<http://arthistory.artsci.wustl.edu/people/angela-miller/>)

PhD, Yale University

### Associate Professors

**Nathaniel Jones** (<http://arthistory.artsci.wustl.edu/people/nathaniel-jones/>)

PhD, Yale University

**Kristina Kleutghen** (<http://arthistory.artsci.wustl.edu/people/kristina-kleutghen/>)

David W. Mesker Associate Professor  
PhD, Harvard University

**Ila Sheren** (<http://arthistory.artsci.wustl.edu/people/ila-sheren/>)

PhD, Massachusetts Institute of Technology

### Assistant Professor

**Nicola Aravecchia** (<http://arthistory.artsci.wustl.edu/people/nicola-aravecchia/>)

PhD, University of Minnesota

### Lecturer

**Esther Gabel** (<http://arthistory.artsci.wustl.edu/people/esther-gabel-0/>)

PhD, University of Cambridge

### Postdoctoral Fellows

**Maggie Crosland** (2021-2023)

PhD, Courtauld Institute of Art

**Scott Weiss** (Spring 2022)

PhD, Stanford University

### Affiliated Faculty

**David Freidel** (<https://anthropology.wustl.edu/people/david-freidel/>)

Professor of Archaeology, Department of Anthropology  
PhD, Harvard University

**Rebecca Messbarger** (<https://rll.wustl.edu/people/rebecca-messbarger/>)

Professor of Italian; History; and Women, Gender and Sexuality  
Studies

PhD, University of Chicago

**Eric Mumford** ([http://samfoxschool.wustl.edu/portfolios/faculty/eric\\_mumford/](http://samfoxschool.wustl.edu/portfolios/faculty/eric_mumford/))

Rebecca and John Voyles Professor of Architecture  
PhD, Princeton University

### Professors Emeriti

**Susan Rotroff**

Jarvis Thurston & Mona Van Duyn Professor Emerita  
PhD, Princeton University

**Sarantis Symeonoglou**

PhD, Columbia University

**Mark S. Weil**

E. Desmond Lee Professor Emeritus  
PhD, Columbia University

### Affiliated Curators, Mildred Lane Kemper Art Museum, Washington University

**Sabine Eckmann**

Director and Chief Curator  
PhD, University of Erlangen–Nürnberg

**Meredith Malone**

Associate Curator  
PhD, University of Pennsylvania

### Affiliated Curators and Directors, Saint Louis Art Museum

**Nichole Bridges**

PhD, University of Wisconsin–Madison

**David Conradsen**

MA, University of Delaware

**Philip Hu**

MA, Institute of Fine Arts, New York University

**Simon Kelly**

PhD, University of Oxford

**Hannah Klemm**

PhD, University of Chicago

**Clare Kobasa**

PhD, Columbia University

**Eric Lutz**

PhD, University of California, Santa Barbara

**Judith Mann**

PhD, Washington University in St. Louis

**Alexander Brier Marr**

PhD, University of Rochester

**Melissa Wolfe**

PhD, Ohio State University

**Elizabeth Wyckoff**

PhD, Columbia University

## Guest Scholars, Pulitzer Arts Foundation

**Tamara Schenkenberg**

Curator

PhD, University of Wisconsin–Madison

**Cara Starke**

Director

MA, Williams College

## Degree Requirements

Applicants for admission to the graduate program are normally expected to have completed 18 units of undergraduate study in art history. However, the department welcomes applications from students with less background in art history who show strong preparation in such fields as classics, history, philosophy, literature, anthropology and Asian studies.

## Master of Arts in Art History and Archaeology

### Requirements for the AM degree

Requirements for this program normally involve 12 courses taken over the course of four semesters, including the required graduate seminar (Methods in Art History) as well as a capstone course in the fourth semester in which the candidate revises two seminar papers for presentation to the faculty as Qualifying Papers. In addition, students must pass a reading proficiency exam in a modern foreign language (or exempt this requirement through graded courses in the language). For students in Asian art, this should be an Asian language. Students in ancient art may be required to demonstrate reading knowledge of an

ancient language. Students continuing for the PhD are strongly advised to demonstrate reading proficiency in a second modern foreign language before the start of their fifth semester in the graduate program.

## PhD in Art History and Archaeology

### Requirements for the PhD degree

Students completing their AM degree at Washington University and continuing as PhD students will have two more semesters of course work, normally in the form of three seminars plus Comprehensive Exam Preparation (two courses) and Dissertation Prospectus (one course). To be admitted to PhD candidacy, a student must also demonstrate reading proficiency in a second modern foreign language, pass the Comprehensive Exam, and successfully defend the Dissertation Prospectus. Students in ancient art and Asian art may have additional language requirements.

Thus, by the end of the sixth semester of graduate study at Washington University, students will normally have achieved the following at a minimum:

- Completed all required courses;
- Demonstrated reading proficiency in no fewer than two modern foreign languages;
- Passed the Comprehensive Exam in the major area;
- Passed the Comprehensive Exam in the minor area (or have exempted this requirement through related course work);
- Determined a three-person Research Advisory Committee for the dissertation; and
- Successfully defended the Dissertation Prospectus.

Students admitted to the PhD program who have an approved master's degree from another university will normally take courses at Washington University for four semesters, including the Comprehensive Exam Preparation courses and the Dissertation Prospectus course. Thus, these students will normally complete all of the requirements for PhD candidacy listed above by the end of the fourth semester of graduate study at Washington University.

## Biology & Biomedical Sciences

The Division of Biology & Biomedical Sciences at Washington University offers exceptional doctoral education at one of the nation's preeminent biomedical research centers. The Division includes 13 doctoral programs:

- Biochemistry, Biophysics and Structural Biology
- Biomedical Informatics and Data Science
- Cancer Biology
- Computational and Systems Biology
- Developmental, Regenerative and Stem Cell Biology

- Evolution, Ecology and Population Biology
- Human and Statistical Genetics
- Immunology
- Molecular Cell Biology
- Molecular Genetics and Genomics
- Molecular Microbiology and Microbial Pathogenesis
- Neurosciences
- Plant and Microbial Biosciences

A collaborative, interdisciplinary approach to research and education is a hallmark of Washington University and the Division. As a universitywide consortium, the Division transcends departmental lines and removes traditional boundaries of scientific fields. Faculty and graduate students regularly cross disciplines, devising novel questions and approaches that might otherwise go unexplored. The Division consists of approximately 690 PhD and MD PhD students, with more than 500 faculty members from 38 departments.

Washington University in St. Louis provides unique opportunities for translating basic science into practical application. In addition, the Division's associations with internationally prominent local institutions provide exciting opportunities: students in the biomedical sciences enrich their work with the clinical perspective of our outstanding medical school; students in plant, population, evolutionary and ecological sciences benefit from our close affiliation with the internationally renowned Missouri Botanical Garden (<http://www.missouribotanicalgarden.org/>) and the Danforth Plant Science Center (<http://www.danforthcenter.org/>).

To help prepare graduates for careers in academia, government, industry or another field of their choice, educational opportunities are offered for skills development and career exploration. The DBBS offers career-planning curriculum, and students can pursue noncredit elective credentials to build transferable professional skills in four areas that apply to a wide variety of scientific careers: leadership, entrepreneurship, science communication, and teaching. Through the Initiative for Maximizing Student Development Career Pathway Talks program, professionals from a variety of fields (e.g., biotech startups, patent law) provide presentations and Q&A sessions to students throughout the year. In addition — through partnerships with groups such as the Teaching Center, the Career Center, and student organizations such as ProSPER, InPrint, Sling Health, the BALSAs Group, and the Young Scientist Program — students have additional opportunities to develop experiences relevant to their future career goals.

Email: [DBBS-Info@email.wustl.edu](mailto:DBBS-Info@email.wustl.edu)  
Website: <http://dbbs.wustl.edu>

## Programs and Faculty

### Biochemistry, Biophysics and Structural Biology (<http://dbbs.wustl.edu/divprograms/biophysics/Pages/BBSB.aspx>)

#### Areas of study:

- Enzymology and allostery
- Mechanisms of neural degeneration
- Molecular signaling
- Biochemistry of host-pathogen interactions
- Mechanisms of microbial immune evasion
- Protein-nucleic acid interactions
- Cell cycle regulation
- Computational biophysics
- Cellular transport and trafficking
- Nanotechnology and chemical biology

Visit our website for information about our Biochemistry, Biophysics and Structural Biology faculty (<http://dbbs.wustl.edu/divprograms/biophysics/Pages/Faculty.aspx>).

### Biomedical Informatics and Data Science (<http://dbbs.wustl.edu/divprograms/BIDS/Pages/default.aspx>)

#### Areas of study:

Training opportunities will include the five areas as defined by the American Medical Informatics Association (AMIA (<https://www.amia.org/>)):

- Applied Clinical Informatics (ACI): applying innovative measurement and informatics approaches to inform and improve clinical practice
- Consumer Health Informatics (CHI): investigating consumers' needs and integrating consumers' preferences into health information systems
- Clinical Research Informatics (CRI): managing information related to clinical trials as well as secondary use of clinical data
- Translational Bioinformatics (TBI): developing storage, analytic and interpretive methods to optimize the transformation of biomedical data
- Population Health Informatics (PopHI): integrating aspects of public health, clinical informatics and health care delivery

Visit our website for information about our Biomedical Informatics and Data Science faculty (<http://dbbs.wustl.edu/divprograms/BIDS/Pages/Faculty.aspx>)

## **Cancer Biology (<http://dbbs.wustl.edu/divprograms/cancerbiology/Pages/default.aspx>)**

### *Areas of study:*

- Apoptosis and autophagy
- Tumor cell biology
- Chromosome stability and genome maintenance
- Cell motility and metastasis
- DNA repair, replication and recombination
- Transcriptional and translational regulation
- Metabolism
- Imaging technologies
- Receptor-ligand interactions
- Signal transduction molecules and pathways
- Biomarker studies
- Genomic mutation profiles and informatics
- Non-coding RNAs
- Tumor immunology and vaccines
- Tumor viruses
- Hematopoiesis
- Cancer disparities
- Small molecule and nanotechnology discoveries
- Tumor microenvironments
- Clinical trial research

Visit our website for information about our Cancer Biology Faculty (<http://dbbs.wustl.edu/divprograms/cancerbiology/Pages/Faculty.aspx>)

## **Computational and Systems Biology (<http://dbbs.wustl.edu/divprograms/compbio/Pages/default.aspx>)**

### *Areas of study:*

- Large-scale genetic network analysis and reconstruction
- Technology development for high-throughput collection of genetic and biochemical data
- Real-time, single-cell analyses of genetic regulatory circuits
- Specificity and evolution of DNA-protein interactions
- Algorithm development for comparison of DNA, RNA, and protein sequences
- Synthetic biology
- Metagenomics and microbiomes
- Epigenetics and epigenomics
- Functional genomic studies of population genetic variation
- Big-biodata integration and modeling

Visit our website for information about our Computational and Systems Biology faculty (<http://dbbs.wustl.edu/divprograms/compbio/Pages/Faculty.aspx>).

## **Developmental, Regenerative and Stem Cell Biology (<http://dbbs.wustl.edu/divprograms/devbio/Pages/default.aspx>)**

### *Areas of study:*

- Regenerative and stem cell biology
- Organogenesis
- Animal models of human developmental disorders
- Aging and longevity
- Neuronal development, differentiation and plasticity
- Genetic/developmental basis of cancer
- Growth factors and cell signaling during development
- Establishment of cell and tissue polarity
- Circadian rhythms
- Growth control and nutrition
- Hormonal regulation
- Gene regulatory networks/systems biology
- Epigenetic control of development

Visit our website for information about our Developmental, Regenerative and Stem Cell Biology faculty (<http://dbbs.wustl.edu/divprograms/devbio/Pages/Faculty.aspx>).

## **Evolution, Ecology and Population Biology (<http://dbbs.wustl.edu/divprograms/eepb/Pages/default.aspx>)**

### *Areas of study:*

- Levels and maintenance of genetic variation in natural plant and animal populations
- Variation at medically relevant genes and candidate loci
- Molecular evolution of genes
- Mechanisms of speciation and adaptation
- Factors that contribute to biodiversity across space and time
- Interaction of species and how such interactions affect biodiversity
- Restoration and conservation of species
- Biology of invasive species
- Role of species in the functioning of entire ecosystems
- Phylogenetic relationships among populations, species and higher taxa

Visit our website for information about our Evolution, Ecology and Population Biology faculty (<http://dbbs.wustl.edu/divprograms/eepb/Pages/Faculty.aspx>).

## Human and Statistical Genetics (<http://dbbs.wustl.edu/divprograms/hsg/Pages/default.aspx>)

### Areas of study:

- Detection of loci for simple and complex/quantitative traits in humans
- Association analyses for common and rare variants
- Development of novel statistical methods for gene discovery
- Mapping of simple and quantitative traits in model organisms
- Genomic approaches to gene expression, transcriptional regulation, and development
- Functional analysis of genes and variants for human disease

Visit our website for information about our Human and Statistical Genetics faculty (<http://dbbs.wustl.edu/divprograms/hsg/Pages/Faculty.aspx>).

## Immunology (<http://dbbs.wustl.edu/divprograms/immunology/Pages/default.aspx>)

### Areas of study:

- Tumor immunobiology
- Autoimmune diseases
- Host-pathogen interactions
- Immune system development
- Lymphocyte function
- Molecular immunology
- Cytokine function
- Lymphocyte differentiation
- Lymphocyte signaling
- Computational modeling of immune responses

Visit our website for information about our Immunology faculty (<http://dbbs.wustl.edu/divprograms/immunology/Pages/Faculty.aspx>).

## Molecular Cell Biology (<http://dbbs.wustl.edu/divprograms/cellbio/Pages/default.aspx>)

### Areas of study:

- Apoptosis
- Cancer cell biology
- Chromosome biology and genome maintenance
- Cytoskeleton assembly, cell motility and chemotaxis
- DNA repair, replication, and recombination
- Extracellular matrix and tissue mechanics
- Mechanisms of enzyme catalysis and inhibition

- Mechanisms of transcription and tissue-specific transcription regulation
- Membrane excitability
- Metabolism
- New imaging technologies for cells and whole animals
- Organelle biogenesis
- Prion diseases and neural degeneration
- Protein trafficking
- Receptor-ligand interactions in regulation of cell growth and cell phenotype
- Regulation of gene expression and translational control
- Signal transduction molecules and pathways
- Vascular biology and coagulation

Visit our website for information about our Molecular Cell Biology faculty (<http://dbbs.wustl.edu/divprograms/cellbio/Pages/Faculty.aspx>).

## Molecular Genetics and Genomics (<http://dbbs.wustl.edu/divprograms/genetics/Pages/default.aspx>)

### Areas of study:

- Genetic basis of human disease
- Epigenetics
- Animal models of human disease
- Cancer genetics
- Model organism genetics
- Computational genomics and epigenomics
- Regulation of transcription and translation
- Population genetics
- Developmental genetics
- Gene therapy
- Gene regulatory networks/systems biology
- Genetic basis of microbial development and pathogenesis
- Functional genomics
- Sequence analysis and gene-structure prediction

Visit our website for information about our Molecular Genetics and Genomics faculty (<http://dbbs.wustl.edu/divprograms/genetics/Pages/Faculty.aspx>).

## Molecular Microbiology and Microbial Pathogenesis (<http://dbbs.wustl.edu/divprograms/micro/Pages/default.aspx>)

### Areas of study:

- Microbial physiology
- Molecular genetics
- Genomics
- Structural biology
- Environmental microbiology
- Microbial bioenergy
- Bacteriology
- Mycology
- Parasitology
- Virology
- Host defense, allergy and inflammation
- Cell biology of host-pathogen interactions
- Imaging technologies for cells and whole animals
- Immune responses to pathogens

Visit our website for information about our Molecular Microbiology and Microbial Pathogenesis faculty (<http://dbbs.wustl.edu/divprograms/micro/Pages/Faculty.aspx>).

## Neurosciences (<http://dbbs.wustl.edu/divprograms/neuro/Pages/default.aspx>)

*Areas of study:*

- Neurobiology
- Neurology
- Functional imaging
- Behavior
- Cognition
- Computational neuroscience
- Electrophysiology
- Sensory systems
- Motor systems
- Neuroglia
- Neuronal development
- Learning
- Memory
- Language
- Synaptic plasticity
- Mind
- Consciousness
- Neurodegeneration
- Diseases of the nervous system
- Neuronal injury
- Clinical neuroscience
- Motor control
- Biological rhythms
- Connectivity mapping

Visit our website for information about our Neurosciences faculty (<http://dbbs.wustl.edu/divprograms/neuro/Pages/Faculty.aspx>).

## Plant and Microbial Biosciences (<http://dbbs.wustl.edu/divprograms/PlantMicroBioSci/Pages/default.aspx>)

*Areas of study:*

- Molecular mechanisms governing responses of microbes and plants to their environment
- Assembly and regulation of membrane-associated complexes
- Cytoskeleton organization and its role in morphology and cell division
- Structural biology and biochemistry
- Molecular mechanisms underlying cell and organelle size
- Plant-microbe interactions
- Metabolic engineering of natural products, biomaterials, and biofuels
- Microbial ecology and evolution
- Biogeochemical cycles and earth history
- Systems biology
- Astrobiology

Visit our website for information about our Plant and Microbial Biosciences faculty (<http://dbbs.wustl.edu/divprograms/PlantMicroBioSci/Pages/Faculty.aspx>).

## Degree Requirements PhD Degrees

Each program has its own steering committee, which provides students with guidance, addresses their needs, and monitors their progress. The committee also helps each student customize the course of study to match their individual needs. Each of the 13 programs establishes its own degree requirements.

Across all of the programs, the course of study consists of five distinct parts:

### Courses

This generally requires two to five semesters and usually consists of four to nine courses in areas fundamental to the student's program. Students are expected to maintain a B average in graduate courses.



## Laboratory Rotations

Selecting a thesis adviser is the most important decision a student makes in graduate school. To help each student make an informed, thoughtful choice, the Division builds in flexibility to explore options. Students usually participate in three lab rotations during their first year. Additional rotations can be arranged, and rotation lengths are flexible. Students usually begin their thesis research by the end of their first year.

## Qualifying Examination

After required courses are completed, each student takes a preliminary or qualifying examination to assess their mastery of the field and their ability to integrate information across fields. Upon successful completion of the qualifying exam, the student concentrates on thesis research.

## Thesis Research

Thesis research begins once the student has chosen a laboratory in which to work. With their mentor — the laboratory's principal investigator — the student devises a thesis project and chooses an advisory committee. Typically between the end of their second year and the middle of their third year, students present their thesis proposals to the thesis committee. Upon successful approval of the thesis proposal, the student officially becomes a doctoral candidate. For the rest of the student's program of study, the thesis committee monitors progress and meets at least once a year to provide analysis and advice. It also serves as the thesis defense committee when the thesis is ready for presentation. Most students complete and defend their dissertations by the end of their sixth year.

## Scientific Scholarship

Keeping abreast of scientific developments is critical for faculty and students alike. The Division offers many ways to stay current. More than 15 weekly biology seminars provide excellent opportunities to meet outstanding scientists from outside Washington University. Several annual symposia bring internationally recognized speakers to campus. Journal clubs meet weekly for students, postdoctoral fellows and faculty to present and discuss current scientific literature. A number of Interdisciplinary Research Pathways (<http://dbbs.wustl.edu/curstudents/SpecialEmphasisPathways/Pages/SpecialEmphasisPathways.aspx>) allow students to enhance their PhD program. Program retreats allow for informal interaction among students and faculty. The Division also provides funds for each student to defray the costs of attending a national scientific meeting.

## Business Administration

Washington University's Olin Business School is one of the nation's leading research institutions, with a faculty whose research productivity consistently ranks among the highest in the business school community. Olin faculty members are recognized the world over for their important contributions to the creation of new knowledge, and they take great pride in their commitment to excellence in teaching.

Olin PhD students are guided by highly productive researchers who are among the nation's top scholars. Faculty work closely with students to help them hone their research skills, often building one-on-one mentoring relationships that include the co-authoring of research papers.

The development of strong problem-solving skills equips students to strategically address complex, unstructured business issues that result in innovative thinking and new ideas for research that have value to the academic community and application in the business world.

Olin's PhD program in business provides the following:

- A challenging core curriculum and a strong background in basic disciplines
- An emphasis on collaborative relationships between faculty and students, which enhances the educational process and the search for the student's first faculty appointment
- Personalized advising for the successful completion of PhD program requirements and for a customized course of study that fits the student's particular area of interest
- A collegial network built on mutual respect and a shared school of thought
- A competitive edge in the business education market

Contact: Jessica Hatch  
Phone: 314-935-6340  
Email: [jessica.hatch@wustl.edu](mailto:jessica.hatch@wustl.edu)  
Website: <http://olin.wustl.edu/EN-US/academic-programs/PhD>

## Faculty

### Dean

**Mark Taylor** (<https://olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=mark.p.taylor>)  
Donald Danforth Jr. Distinguished Professor of Finance  
PhD, Birbeck College, University of London

## Endowed Professors

**Nicholas S. Argyres** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=argyres>)

Vernon W. and Marion K. Piper Professor of Strategy  
PhD, University of California, Berkeley

**William P. Bottom** (<https://olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=bottomb>)

Joyce and Howard Wood Distinguished Professor of  
Organizational Behavior  
PhD, University of Illinois at Urbana-Champaign

**J. Stuart Bunderson** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=bunderson>)

George and Carol Bauer Professor of Organizational Ethics and  
Governance  
PhD, University of Minnesota

**Tat Y. Chan** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=chan>)

PhD, Yale University  
(Marketing)

**Siddhartha Chib** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=chib>)

Harry C. Hartkopf Professor of Econometrics and Statistics  
PhD, University of California, Santa Barbara

**Kurt T. Dirks** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=dirks>)

Bank of America Professor of Managerial Leadership  
PhD, University of Minnesota

**Lingxiu Dong** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=dong>)

PhD, Stanford University  
(Operations and Manufacturing Management)

**Philip H. Dybvig** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=dybvig>)

Boatmen's Bancshares Professor of Banking and Finance  
PhD, Yale University

**Hillary Anger Elfenbein** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=helfenbein>)

John K. Wallace Jr. and Ellen A. Wallace Distinguished  
Professor  
PhD, Harvard University

**Richard M. Frankel** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=frankel>)

Beverly and James Hance Professor of Accounting  
PhD, Stanford University

**Mahendra Gupta** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=m.gupta>)

Geraldine J. and Robert L. Virgil Professor of Accounting and  
Management  
PhD, Stanford University

**Barton H. Hamilton** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=hamiltonb>)

Robert Brookings Smith Distinguished Professor of  
Entrepreneurship  
PhD, Stanford University

**Ohad Kadan** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=kadan>)

H. Frederick Hagemann, Jr. Professor of Finance  
PhD, Hebrew University

**Anne Marie Knott** (<https://olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=knott>)

Robert and Barbara Frick Professor of Business  
PhD, University of California, Los Angeles

**Panos Kouvelis** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=kouvelis>)

Emerson Professor of Operations and Manufacturing  
Management  
PhD, Stanford University

**Hong Liu** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=liuh>)

Fossett Distinguished Professor in Finance  
PhD, University of Pennsylvania

**Glenn M. MacDonald** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=macdonald>)

John M. Olin Distinguished Professor of Economics and Strategy  
PhD, University of Rochester

**Judi McLean Parks** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=mcleanparks>)

Reuben C. and Anne Carpenter Taylor Professor of  
Organizational Behavior  
PhD, University of Iowa

**Todd T. Milbourn** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=milbourn>)

Hubert C. and Dorothy R. Moog Professor of Finance  
PhD, Indiana University

**Stephen M. Nowlis** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=nowlis>)

August A. Busch Jr. Distinguished Professor of Marketing  
PhD, University of California, Berkeley

**Robert A. Pollak** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=pollak>)

Herrnreich Distinguished Professor of Economics  
PhD, Massachusetts Institute of Technology

**P.B. (Seethu) Seetharaman** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=seethu>)

W. Patrick McGinnis Professor of Marketing  
PhD, Cornell University

**Anjan Thakor** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=thakor>)

John E. Simon Professor of Finance  
PhD, Northwestern University

**Fuqiang Zhang** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=fzhang22>)

Dan Broida Professor of Operations and Manufacturing Management  
PhD, University of Pennsylvania

**Guofu Zhou** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=zhou>)

Frederick Bierman and James E. Spears Professor of Finance  
PhD, Duke University

## Professors

**David Ahn** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=ahnd>)

PhD, Stanford University  
(Economics)

**Markus Baer** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=baer>)

PhD, University of Illinois at Urbana-Champaign  
(Organizational Behavior)

**Erik Dane** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=erikdane>)

PhD, University of Illinois at Urbana-Champaign  
(Organizational Behavior)

**Adrienne Davis** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=adriennedavis>)

JD, Yale University  
(Leadership)

**Daniel Elfenbein** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=elfenbein>)

PhD, Harvard University  
(Organization and Strategy)

**Nicolae Garleanu** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=garleanu>)

PhD, Stanford University  
(Finance)

**Radhakrishnan Gopalan** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=gopalan>)

PhD, University of Michigan  
(Finance)

**Todd Gormley** (<https://olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=gormley>)

PhD, Massachusetts Institute of Technology  
(Finance)

**Andrew P. Knight** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=knightap>)

PhD, University of Pennsylvania  
(Organizational Behavior)

**Robyn LeBoeuf** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=leboeuf>)

PhD, Princeton University  
(Marketing)

**Xiumin Martin** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=xmartin>)

PhD, University of Missouri-Columbia  
(Accounting)

**J. Lamar Pierce** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=pierce>)

PhD, University of California, Berkeley  
(Strategy)

**Stephen Ryan** (<https://olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=stephen.p.ryan>)  
PhD, Duke University  
(Economics)

**Raphael Thomadsen** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=thomadsen>)  
PhD, Stanford University  
(Marketing)

## Associate Professors

**Mariagiovanna Baccara** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=mbaccara>)  
PhD, Princeton University  
(Economics)

**Jeremy Bertomeu** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=jeremy.bertomeu>)  
PhD, Carnegie Mellon University  
(Accounting)

**Cynthia Cryder** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=cryder>)  
PhD, Carnegie Mellon University  
(Marketing)

**Jason Donaldson** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=j.r.donaldson>)  
PhD, London School of Economics  
(Finance)

**Jacob Feldman** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=jbfeldman>)  
PhD, Cornell University  
(Operations and Manufacturing Management)

**Armando Gomes** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=gomes>)  
PhD, Harvard University  
(Finance)

**Brett Green** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=b.green>)  
PhD, Stanford University  
(Economics)

**Jared Jennings** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=jaredjennings>)  
PhD, University of Washington  
(Accounting)

**Baojun Jiang** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=baojunjiang>)  
PhD, Carnegie Mellon University  
(Marketing)

**Mark Leary** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=leary>)  
PhD, Duke University  
(Finance)

**Asaf Manela** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=amanela>)  
PhD, University of Chicago  
(Finance)

**Elanor Williams** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=elanorwilliams>)  
PhD, Cornell University  
(Psychology)

**Song Yao** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=songyao>)  
PhD, Duke University  
(Business Administration)

**Minyuan Zhao** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=minyuan>)  
PhD, New York University  
(Economics)

**Dennis Zhang** (<https://olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=denniszhang>)  
PhD, Northwestern University  
(Operations and Manufacturing Management)

## Assistant Professors

**Deniz Aydin** (<https://olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=daydin>)  
PhD, Stanford University  
(Finance)

**John Barrios** (<https://olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=john.barrios>)

PhD, University of Miami  
(Accounting)

**Taylor Begley** (<https://olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=tbegley>)

PhD, University of Michigan  
(Finance)

**Seth Carnahan** (<https://olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=seth.carnahan>)

PhD, University of Maryland  
(Strategy)

**Naveed Chehrazi** (<https://olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=naveed.chehrazi>)

PhD, Stanford University  
(Operations and Manufacturing Management)

**Kimball Chapman** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=kimballchapman>)

PhD, Pennsylvania State University  
(Accounting)

**Edwige Cheynel** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=echeynel>)

PhD, Carnegie Mellon University  
(Accounting)

**Kaitlin Daniels** (<https://olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=k.daniels>)

PhD, University of Pennsylvania  
(Operations Management)

**Tarek Ghani** (<https://olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=tghani>)

PhD, University of California, Berkeley  
(Business Administration)

**Fausto Gonzalez** (<https://olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=>)

PhD, University of California, Berkeley  
(Business Administration)

**Chad Ham** (<https://olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=cham>)

PhD, University of Maryland  
(Accounting)

**Ashley Hardin** (<https://olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=aehardin>)

PhD, University of Michigan  
(Organizational Behavior)

**Brent Hickman** (<https://olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=hickmanbr>)

PhD, University of Iowa  
(Economics)

**Xing Huang** (<https://olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=xing.huang>)

PhD, University of California, Berkeley  
(Finance)

**Xiang Hui** (<https://olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=hui>)

PhD, Ohio State University  
(Marketing)

**Zachary Kaplan** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=zrkaplan>)

PhD, University of Chicago  
(Accounting)

**Jeongmin Lee** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=jlee89>)

PhD, University of Maryland  
(Finance)

**Maarten Meeuwis** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=m.meeuwis>)

PhD, Massachusetts Institute of Technology  
(Finance)

**Paulo Natenzon** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=PNatenzon>)

PhD, Princeton University  
(Economics)

**Andreas Neuhierl** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=>)

PhD, Northwestern University  
(Finance)

**Yulia Nevskaya** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=yulia.nevskaya>)

PhD, University of Rochester  
(Marketing)

**Hannah Perfecto** (<https://olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=perfecto>)

PhD, University of California, Berkeley  
(Marketing)

**MaryJane Rabier** (<https://olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=mrabier>)

PhD, University of Maryland  
(Accounting)

**Iva Rashkova** (<https://olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=irashkova>)

PhD, London Business School  
(Management Science and Operations)

**Oren Reshef** (<https://olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=oren>)

PhD, University of California, Berkeley  
(Strategy)

**Sydney Scott** (<https://olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=sydneyscott>)

PhD, University of Pennsylvania  
(Marketing)

**Janis Skrastins** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=jskrastins>)

PhD, London Business School  
(Finance)

**Ulya Tsolmon** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=utsolmon>)

PhD, Duke University  
(Strategy)

## Professors of Practice

**Peter Boumgarden** (<https://olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=boumgardenp>)

PhD, Washington University  
(Organizational Behavior)

**Samuel S. Chun** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=schun>)

PhD, Washington University  
(Marketing)

**Cathy Dunkin** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=cdunkin>)

BA, University of Missouri Columbia  
(Management)

**Jeremy Degenhart** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=jdegenhart9876>)

BS, BA, Washington University  
(Finance)

**John Horn** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=johnhorn>)

PhD, Harvard University  
(Economics)

**Sharon James** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=>)

PhD, Harvard University  
(Strategy)

**Patrick Moreton** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=moreton>)

PhD, University of California, Berkeley  
(Strategy and Management)

**Patrick Rishe** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=prishe>)

PhD, Binghamton University  
(Sports Business)

**Timothy Solberg** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=solbergtg>)

University of Chicago  
(Sports Business)

**Staci Thomas** ([https://olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=staci\\_thomas](https://olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=staci_thomas))

MA, Webster University  
(Communications)

**Doug Villhard** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=dvillhard>)

MA, Boston University  
(Communications)

**Liberty Vittert** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=liberty.vittert>)

PhD, University of Glasgow  
(Data Analytics)

**Michael Wall** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=michael.wall>)

Indiana University  
(Marketing)

## Teaching Professors

**Damon Campell** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=>

<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=>)  
PhD, Washington State University  
(Data Analytics)

**Julia Deems** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=jdeems>)

PhD, Carnegie Mellon University  
(Management)

**Clive Muir** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=>

<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=>)  
PhD, New Mexico State University  
(Management)

## Senior Lecturers

**Sergio Chayet** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=chayet>)

PhD, Northwestern University  
(Operations and Manufacturing Management)

**Charles J. Cuny** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=cuny>)

PhD, Stanford University  
(Finance)

**Rebecca Dohrmann** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=>

<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=>)  
PhD, Purdue University  
(Management)

**Thomas D. Fields** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=tfields>)

PhD, Northwestern University  
(Accounting)

**Ronald R. King** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=rking>)

Lecturer in Accounting  
PhD, University of Arizona

**Konstantina Kiouisis** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=kiouisis>)

PhD, University of California, Los Angeles  
(Business Administration)

**Gary Lin** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=gary.c.lin>)

PhD, University of Florida  
(Data Analytics)

**David R. Meyer** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=dmeyer24>)

PhD, University of Chicago  
(Management)

**Lorenzo Naranjo** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=>

<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=>)  
PhD, New York University  
(Finance)

**Chakravarthi Narasimhan** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=narasimhan>)

Lecturer in Marketing  
PhD, University of Rochester

**Jackson A. Nickerson** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=nickerson>)

PhD, University of California, Berkeley

**Richard Palmer** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=rjpalmer>)

PhD, Southern Illinois University, Carbondale  
(Business Administration)

**Sakya Sarkar** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=>

<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=>)  
PhD, University of Southern California  
(Data Analytics)

**Eli M. Snir** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=snir>)

PhD, University of Pennsylvania  
(Finance)

**Mark E. Soczek** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=soczek>)

PhD, Northwestern University  
(Accounting)

**Durai Sundaramoorthi** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=sundaramoorthi>)

PhD, University of Texas at Arlington  
(Data Analytics)

## Lecturers

**Forough Enayaty Ahangar** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=>

PhD, University of Arkansas  
(Operations and Manufacturing Management)

**Mohammadhossein Amini** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=h.amini>)

PhD, Kansas State University  
(Industrial Engineering)

**Samira Fazel** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=samira>)

PhD, Wayne State University  
(Industrial Engineering)

**Mahsa Mardikoraem** (<https://olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=>

MS, Flinders University  
(Operations and Manufacturing Management)

**Ivan Lapuka** (<https://olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=ilapuka>)

PhD, University of South Florida  
(Marketing)

**Gerald Onwujekwe** (<https://olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=>

MBA, National Open University  
(Data Analytics)

**Esmat Sangari** (<https://olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=>

MS, Northwestern University  
(Operations and Manufacturing Management)

## Adjunct and Other Faculty

**Pier Alsup** (<https://olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=alsup.pier.y>)

MS, Webster University  
(Marketing)

**John Althoff** (<https://olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=althoff.john>)

BS, University of Missouri-St. Louis  
(Accounting)

**Amy Altholz** (<https://olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=altholza>)

MBA, Washington University  
(Accounting)

**Yossi Aviv** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=aviv>)

PhD, Columbia University  
(Operations Manufacturing and Management)>

**Sundari Balan** (<https://olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=sundari>)

PhD, University of Michigan  
(Data Analytics)

**Richard Batsell** (<https://olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=batsell>)

PhD, University of Texas at Austin  
(Marketing)

**Karen Bedell** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=kbedell>)

MBA, Saint Louis University  
(Management)

**Anatoliy Belaygorod** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=belaygorod>)

PhD, Washington University  
(Finance)

**Patricia Bland** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=patricia.bland>)

JD, University of Missouri, Kansas City  
(Management)

**Alex Borchert** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=borcherta>)

BS, Washington University  
(Finance)

**Spencer Burke** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=burkesb>)

JD, University of Pennsylvania  
(Management)

**David Butler** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=david.butler>)

MBA, Washington University  
(Health Care Management)>



**Amy Choy** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=amychoy>)

PhD, Washington University  
(Accounting)

**Robert Collins** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=rbcollins>)

MBA, Harvard Business School  
(Accounting)

**Yoni Danieli** (<https://olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=yoni>)

MBA, Northwestern University  
(Organizational Behavior)

**Walker Deibel** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=deibelw>)

MBA, Washington University  
(Management)

**Jim Deutsch** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=jdeutschjr>)

MA, Webster University  
(Finance)

**William R. Emmons** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=emmons>)

PhD, Northwestern University  
(Finance)

**Peter S. Finley**

MBA, Stanford University  
(Entrepreneurship)

**Ronald K. Fisher**

JD, Washington University  
(Labor and Employment Laws)

**Joseph Frank** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=jgfrank>)

PhD, Washington University  
(Management)

**Hans Fredrikson** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=hans.fredrikson>)

MBA, University of Chicago  
(Finance)

**Laura Freeman** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=lfreeman>)

PhD, United States International University  
(Management)

**David Fritsch** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=fritschd>)

MBA, Washington University  
(Business Administration)

**Bruce Lee Hall** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=hallb>)

PhD, MD, Duke University  
(Health Care Management)

**Mike Jenkins** (<https://olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=mjenkins>)

MA, Webster University  
(Management)

**Carol F. Johaneck** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=johaneck>)

MBA, Saint Louis University  
(Marketing)

**Lorrie Librizze** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=lorrie.librizzi>)

MA, Northern Illinois University  
(Management)

**Sarah Luem** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=sluem>)

JD, Saint Louis University  
(Management)

**Steven Malter**

PhD, University of Missouri-St. Louis  
(Management)

**Joseph Martinich** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=martinichjs>)

PhD, Northwestern University  
(Operations and Manufacturing Management)

**Mary Mason** (<https://olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=masonm>)

MD, Washington University  
(Management)

**Tom McCain** (<https://olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=tkmccain>)

MBA, Washington University  
(Management)

**Chris McCusker** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=McCusker>)

PhD, University of Illinois  
(Organizational Behavior)

**Ken Moore** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=ken.moore>)

MA, Lindenwood University  
(Management)

**Paul W. Paese**

PhD, University of Illinois at Urbana-Champaign  
(Organizational Behavior)

**David Pearson**

DBA, Indiana University  
(Accounting)

**Jeff Plunkett** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=jplunkett>)

JD, Saint Louis University  
(Accounting)

**David A. Poldoian** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=poldoian>)

MBA, Harvard University  
(Entrepreneurship)

**Kristin Poole** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=kristinpoole>)

MS, Saint Louis University  
(Finance)

**Casey Quinn** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=quinncc>)

MBA, Washington University  
(Health Care Management)

**Richard Ryffel** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=ryffel>)

MBA, Boston University  
(Finance)

**Anthony Sardella** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=sardella>)

MBA, Northwestern University  
(Management)

**Mark Sopher** (<https://olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=m.sopher>)

JD, University of Texas School of Law  
(Management)

**Ted Stann** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=tedstann>)

(Finance)

**Michael Stohler** (<https://olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=michael.stohler>)

BS, Bellarmine College  
(Economics)

**Zsuzsanna Szemeredi** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=zsuzsanna.szemeredi>)

PhD, Universidad Complutense de Madrid  
(Management)

**Cynthia A. Wichelman** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=wichelmanc>)

MD, Stanford University  
(Business and Medicine)

**Kristie Wickwire** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=kwickwire>)

BA, Washington University  
(Management)

**Robert Zafft** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=robertzafft>)

JD, Harvard University  
(Law)

## Professors Emeriti

**Nicholas Baloff**

(Business and Public Administration)

**Stuart I. Greenbaum** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=greenbaum>)

Former Dean and Bank of America Professor Emeritus of  
Managerial Leadership  
PhD, Johns Hopkins University

**James T. Little** (<https://olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=littlej>)

Donald Danforth Jr. Distinguished Professor Emeritus of Business  
PhD, University of Minnesota

**Ambar Rao**

Fossett Distinguished Professor Emeritus of Marketing

**J. George Robinson**

Professor Emeritus of Marketing

**Robert L. Virgil Jr.**

Dean Emeritus of the John M. Olin Business School and  
Professor Emeritus of Accounting

**John E. Walsh Jr.**

(Management)

## Degree Requirements

### PhD in Business Administration

PhD students must complete 36 credit units; maintain satisfactory academic progress; pass certain examinations; fulfill residence and teaching requirements; and write, defend and submit a dissertation.

Upon the successful completion of business PhD study, the student is awarded a PhD from the Graduate School at Washington University.

### Core Foundation

- A strong foundation in microeconomics or psychology, probability & statistics, and quantitative methods
- Exposure to the student's area of specialization and the required research tools
- Successful completion of the core exam

### Specialization

- Courses in one or more areas of study
- In-depth knowledge in the chosen field
- Active association with the research process through faculty mentoring
- Completion of the field exam

### Research

- Participation with faculty in research activities
- Research paper presentation
- Individual research pursuing a specialized topic of interest
- Preparation and defense of the dissertation

## Chemistry

The Department of Chemistry offers a **PhD in Chemistry**, with research specializations available in biological, organic, inorganic, physical and nuclear chemistry. Doctoral students often work at the interface of two or more subfields of chemistry; they may also work at the interface of different scientific disciplines. Lab assignments are therefore made according to each student's research project. Chemistry students may work in a lab outside the department or alongside students from other departments in a chemistry lab.

The department's research strengths in each subfield of chemistry are as follows:

- Biological: biophysical, bioorganic, bioinorganic, biochemistry
- Organic: synthetic, organometallic, bioorganic, physical organic, asymmetric catalysis
- Inorganic: coordination, organometallic, materials, bioinorganic, main group
- Physical: computational, laser spectroscopy, theoretical, magnetic resonance
- Interdisciplinary: biophysical, physical organic, materials
- Nuclear and radiochemistry: stability of nuclei, radioisotopes for medical studies

Washington University's graduate student stipends are in the top 25% of stipends at similar universities, and St. Louis has a low cost of living. The department has an excellent record of placing its graduates in a wide variety of jobs: academic, industrial, governmental, legal, consulting, writing/editing and entrepreneurial.

## Contact Information

**Richard Loomis**

loomis@wustl.edu  
314-935-8534

**Alison Redden Wessels**

aredden@wustl.edu  
314-935-6521

**Barbara Tessmer**

barbara22@wustl.edu  
314-935-7316

Website: <http://www.chemistry.wustl.edu/graduate>

## Faculty

### Chair

**William E. Buhro** (<https://chemistry.wustl.edu/people/william-buhro/>)

George E. Pake Professor of Arts & Sciences  
PhD, University of California, Los Angeles

### Endowed Professors

**Gary J. Patti** (<https://chemistry.wustl.edu/people/gary-patti/>)

Michael and Tana Powell Professor of Chemistry  
PhD, Washington University

**William B. Tolman** (<https://chemistry.wustl.edu/people/william-tolman/>)

William Greenleaf Eliot Professor of Chemistry  
Associate Dean of Research  
PhD, University of California, Berkeley

**Mark S. Wrighton** (<https://chemistry.wustl.edu/people/mark-stephen-wrighton/>)

James and Mary Wertsch Distinguished University Professor  
Chancellor Emeritus  
PhD, California Institute of Technology

### Professors

**John R. Bleeke** (<https://chemistry.wustl.edu/people/john-bleeke/>)

PhD, Cornell University

**Michael L. Gross** (<https://chemistry.wustl.edu/people/michael-l-gross/>)

PhD, University of Minnesota

**Sophia E. Hayes** (<https://chemistry.wustl.edu/people/sophia-e-hayes/>)

PhD, University of California, Santa Barbara

**J. Dewey Holten** (<https://chemistry.wustl.edu/people/dewey-holten/>)

PhD, University of Washington

**Richard A. Loomis** (<https://chemistry.wustl.edu/people/richard-loomis/>)

PhD, University of Pennsylvania

**Kevin D. Moeller** (<https://chemistry.wustl.edu/people/kevin-moeller/>)

PhD, University of California, Santa Barbara

**Jay Ponder** (<https://chemistry.wustl.edu/people/jay-ponder/>)

PhD, Harvard University

**Lee G. Sobotka** (<https://chemistry.wustl.edu/people/lee-sobotka/>)

PhD, University of California, Berkeley

**John-Stephen Taylor** (<https://chemistry.wustl.edu/people/john-stephen-taylor/>)

PhD, Columbia University

### Associate Professors

**Vladimir B. Birman** (<https://chemistry.wustl.edu/people/vladimir-birman/>)

PhD, University of Chicago

**Richard Mabbs** (<https://chemistry.wustl.edu/people/richard-mabbs/>)

PhD, University of Nottingham (UK)

**Timothy Wencewicz** (<https://chemistry.wustl.edu/people/timothy-wencewicz/>)

PhD, University of Notre Dame

### Assistant Professors

**Jonathan Barnes** (<https://chemistry.wustl.edu/people/jonathan-barnes/>)

PhD, Northwestern University

**Julio D'Arcy** (<https://chemistry.wustl.edu/people/julio-m-darcy/>)

PhD, University of California, Los Angeles

**Joseph Fournier** (<https://chemistry.wustl.edu/people/joseph-fournier/>)

PhD, Yale University

**Meredith Jackrel** (<https://chemistry.wustl.edu/people/meredith-jackrel/>)

PhD, Yale University

**Courtney Reichhardt** (<https://chemistry.wustl.edu/people/courtney-reichhardt/>)

PhD, Stanford University

**Bryce Sadtler** (<https://chemistry.wustl.edu/people/bryce-sadtler/>)

PhD, University of California, Berkeley

### Joint Professor

**Richard W. Gross** (<https://chemistry.wustl.edu/people/richard-w-gross/>)

PhD, Washington University  
(Internal Medicine)

## Degree Requirements

### PhD in Chemistry

Requirements:

- 72 semester hours of graduate credit in courses and research
- Satisfactory performance on oral cumulative examinations
- Satisfactory performance in annual pre-thesis committee meetings
- Demonstration of teaching competence
- Dissertation research and preparation of dissertation
- Satisfactory performance on a final oral dissertation defense

On average, students take between five and six years to complete the PhD.

Requirements specific to Chemistry include attendance at Thursday evening research presentations during the student's first fall semester, presenting and passing an oral examination within the first four semesters, and annual recertification in laboratory safety.

Almost all students participate in mentored teaching experiences during their first two years and must perform satisfactorily. Students must also make annual research presentations to their advisory committee, prepare a satisfactory dissertation research proposal, and pass an oral examination.

## Classics

The Department of Classics is committed to the threefold study of Greco-Roman antiquity via its languages and literatures, its history, and its art and architectural remains. The **Master of Arts (AM) in Classics** is ideal preparation either for the PhD or for a career in secondary teaching, and it has a strong placement record in both areas. The **Doctor of Philosophy (PhD)** program prepares candidates primarily for careers in research and university teaching. The department also supports students' exploration of alternative careers while pursuing the AM or PhD. Both programs provide rigorous instruction in Greek and Latin languages and literatures, exposure to the subfields of Classics, opportunities to cultivate special fields of research, and teaching experience in departmental courses.

Although both graduate programs are built around preparation in the core fields of Classics, opportunities exist for collaboration with numerous other departments and programs. PhD candidates have the option to pursue one of several special interdisciplinary tracks: Ancient History, Ancient Performance, Ancient Music, or Ancient Philosophy. Washington University also possesses several special collections of interest to the Classics researcher: the John Max Wulfling Coin Collection, an internationally recognized resource that can be applied to studies in numismatics, history, economics and art; a small collection of papyri housed in Olin Library; a substantial archive of epigraphical materials; and an important collection of Greek painted pottery.

Contact: Timothy Moore  
Phone: 314-935-6618  
Email: [classics@wustl.edu](mailto:classics@wustl.edu)  
Website: <https://classics.wustl.edu>

## Faculty

### Endowed Professor

#### Timothy Moore

John and Penelope Biggs Distinguished Professor of Classics  
Director of Graduate Studies  
PhD, University of North Carolina

Professor Moore's work concentrates on several areas of classical antiquity, including the comic theater of Greece and Rome, Greek and Roman music, and Roman historiography. Current projects include a database and book on music in Greek and Roman theater and articles on music and poetic rhythm in ancient Rome. He also has interests in the history of theater, especially American musical theater and Japanese Kyogen comedy.

### Professor and Chair

#### Catherine Keane

Department Chair  
PhD, University of Pennsylvania

Professor Keane's interests range broadly over Greek and Roman literature and culture, but her research centers on the comic genres and their engagement with moral, social, and literary problems, particularly the Roman verse satirists Lucilius, Horace, Persius, and Juvenal and the epigrammatist Martial.

### Associate Professors

#### William Bubelis

Curator of the Wulfling Coin Collection  
PhD, University of Chicago

Professor Bubelis' research in Greek history focuses on the intersection of economy, religion and public institutions. His work utilizes the evidence of inscriptions (epigraphy), coins (numismatics) and other material remains alongside the literary texts of ancient historians, poets, orators and the like. While most of his scholarship has engaged with classical Athens, Professor Bubelis avidly explores the societies of the eastern Mediterranean across antiquity, including Iron Age Cyprus and the Achaemenid Persian Empire to Hellenistic Egypt.

#### Thomas Keeline

Director of Undergraduate Studies  
PhD, Harvard University

Professor Keeline works primarily on Latin literature, the history of classical scholarship and education from antiquity to the present, rhetoric, textual criticism, lexicography and metrics.

### Zoe Stamatopoulou

PhD, University of Virginia

Professor Stamatopoulou's research and teaching encompass several aspects of ancient Greek literature and culture, but her work focuses primarily on archaic and classical poetry (Homer, Hesiod, lyric poetry, drama). She is also interested in the symposium, ancient biographies of poets, and the reception of archaic Greece in Imperial Greek literature (especially Plutarch).

## Assistant Professors

### Nicola Aravecchia

PhD, University of Minnesota

Professor Aravecchia's research interests encompass the art and archaeology of Greco-Roman and Late Antique Egypt. He has taught courses in classical languages, ancient history, and art and archaeology in the United States, Egypt and Australia. His current work focuses on the origins and development of Early Christian architecture in rural Egypt. Since 2005, he has been involved in archaeological projects in the Dakhla Oasis, located in the Western Desert of Upper Egypt.

### Luis Alejandro Salas

PhD, University of Texas

Professor Salas specializes in Greek and Roman medicine, philosophy and intellectual history. He is also interested in Aristotelian psychology. His research focuses on medical and philosophical sectarianism, especially in the work of Galen of Pergamum.

## Senior Lecturer

### Kathryn Wilson

PhD, University of Pennsylvania

Professor Wilson's research interests focus on the intersection of poetry and science. She is especially interested in Hellenistic literature and the relationship between different intellectual enterprises occurring during that time. She is also interested in the evolution of the genre of didactic poetry.

## Lecturers

### Lance Jenott

PhD, Princeton University

Professor Jenott teaches courses on the New Testament, studies in Christian origins, and Coptic language and literature. His other interests include Second Temple Judaism, Greco-Roman philosophy, classical civilizations, and theories and methods in the study of religion. Dr. Jenott is the author of *The Gospel of Judas: Coptic Text, Translation, and Historical Interpretation of the 'Betrayal's Gospel'*, and he is the co-author of *The Monastic Origins of the Nag Hammadi Codices*. He is currently working on a commentary on the Gospel of Judas for the Hermeneia Series by Fortress Press.

### Grizelda McClelland

Assistant Dean, College of Arts & Sciences  
PhD, Washington University

Dean McClelland teaches courses in Greek art and archaeology, Greek and Latin literature and its reception, and ancient childhood.

### Rebecca Sears

PhD, University of Michigan

Professor Sears' research interests include ancient music, papyrology, Latin poetry (particularly Ovid's *Metamorphoses*) and ancient magic. She is currently working on a textbook for the University of Michigan Press that will discuss important technical and cultural features of both Greek and Roman music as well as the reception and reconstruction of ancient music. In addition to her love of classical languages and cultures, she is a violinist who has performed in benefit concerts throughout New England.

## Professors Emeriti

### Carl W. Conrad

PhD, Harvard University

### Robert D. Lambertson

PhD, Yale University

### George M. Pepe

PhD, Princeton University

### Susan I. Rotroff

Jarvis Thurston & Mona Van Duyn Professor Emerita  
PhD, Princeton University

## Degree Requirements

### AM in Classics

Candidates may obtain an AM degree in Classics by completing 36 graduate units of credit, completing a reading list, and taking a series of examinations. Students applying to continue in the Classics department's PhD program must also write a master's thesis. Others may choose to complete the AM with or without a thesis.

## Courses

### 36 units, including the following:

#### Specific required courses: 9 units

- Classics 503 Classical Studies: Theories, Methods & Practice (3 units), a proseminar on materials, methods, and professional issues in Classics (offered every two years)
- Greek 445 Greek Prose Composition (offered every 2 years)
- Latin 444 Latin Prose Composition (offered every 2 years)

#### Other course requirements: 21 units (for AM with thesis)

- At least 6 units in Greek (L09) (two options are offered every semester)
- At least 6 units in Latin (L10) (two or more options are offered every semester)

Most remaining courses will be in Greek, Latin and Classics. All must be at the 400 level or above, and the majority — especially during the second year of study — should be at the 500 level. With the guidance of the director of graduate studies, students may take 3 course units outside of the Classics department.

#### Research credits: 6 units

The master's thesis counts for 6 units. Any student opting not to write a thesis will fulfill these units with additional courses.

### Modern Language Competence

This competence can be in German, French or Italian; the requirement may be fulfilled by courses or examination.

### Program Exams

- Greek Reading List
- Latin Reading List

Students not planning to go on to a PhD program in Classics may opt to take the Reading List exam in one language (Greek or Latin) only. Those who pursue this option must still complete at least 6 units in the other language at the 400 level or above. The examination will require the student to demonstrate competence in translation and interpretation as well as in knowledge of the relevant scholarship.

### Teaching Option

AM students may have the opportunity to assist faculty as paid student workers in undergraduate courses. They are also eligible to enroll in the department's graduate course in Classics pedagogy.

### PhD in Classics

The Classics PhD requires 60 graduate units of courses and research in combination. Up to 24 of these units may be transferred from an outside AM program in Classics at the discretion of the Graduate Committee. (Requirements listed below include requirements for the AM in Classics at Washington University.) All units must be at the 400 level or above, and the majority should be at the 500 level. With the guidance of the director of graduate studies, students may take up to 12 units outside of the Classics department to enhance their graduate study. Students may choose to pursue one of four special interdisciplinary tracks: Ancient Performance, Ancient Music, Ancient History, or Ancient Philosophy. Every PhD candidate also completes a teaching requirement through assignments as assistant in instruction and instructor of record.

## Courses

### 54 units, including the following:

#### Specific required courses: 12 units

- Classics 503 Classical Studies: Theories, Methods & Practice (3 units), a proseminar on materials, methods, and professional issues in Classics (offered every two years)
- Classics 505 Seminar in Classics Pedagogy for Graduate Students (3 units) (offered every two or three years)
- Greek 445 Greek Prose Composition (offered every 2 years)
- Latin 444 Latin Prose Composition (offered every 2 years)

#### Other course requirements: 27 units

- At least 12 units in Greek (L09) (two options are offered every semester)
- At least 12 units in Latin (L10) (two or more options are offered every semester)
- At least 3 units in ancient history (at least one course will be offered every two years)

#### Elective courses: 15 units

This requirement includes courses for individual tracks, optional independent studies in preparation for exams, and other courses to be chosen after consultation with the director of graduate studies.

### Research Credits

The master's thesis counts for 6 units.

### Program Exams

- Greek Reading List
- Latin Reading List
- Comprehensive Exam
- Special Field Exam

### Teaching

Eight semesters of mentored teaching experiences are required, including at least two courses as the instructor of record.

### Modern Language Competence

This competence can be in German and French or in German and Italian; the requirement may be fulfilled by courses or examination in each case.

### Dissertation Requirements

- Dissertation prospectus
- Dissertation prospectus colloquium
- Dissertation
- Dissertation defense

## Comparative Literature

The Comparative Literature program at Washington University offers a Master of Arts (AM); a Doctor of Philosophy (PhD); a combined PhD with Chinese, English, French, German, Japanese or Spanish; a graduate certificate in Translation Studies; and a graduate certificate in Early Modern Studies. In addition, a track within the PhD program for international writers targets promising authors, translators, and public intellectuals from around the world who wish to enhance their career by coupling it with academic preparation in comparatist literary studies in the United States. In close cooperation with other humanities programs, Comparative Literature enables students to tailor a course of study appropriate to their areas of interest, strengths, and long-term goals.

At its core, Comparative Literature aims to provide students with a grounding in contemporary and historically significant methodologies and approaches to comparative literature, including especially those pertinent to the following four areas: transcultural studies; translation studies; literature, politics and society; and new and old media. Students combine this core with the thorough study of at least one primary literature (usually nationally or geographically defined) and two secondary fields. Depending on the focus of their degree and course of study, graduates typically apply for academic positions in comparative literature programs; language, literature, and culture departments; and such programs as gender studies, theater, performing arts, and area studies. Some graduates may choose to pursue employment in publishing and arts-related fields outside of academia.

Phone: 314-935-5170  
Email: [complit@wustl.edu](mailto:complit@wustl.edu)  
Website: <http://complit.wustl.edu>

## Faculty

### Director

**Lynne Tatlock** (<http://complit.artsci.wustl.edu/people/lynne-tatlock/>)

Hortense and Tobias Lewin Distinguished Professor in the Humanities  
PhD, Indiana University

### Endowed Professors

**Paul Michael Lützeler** (<http://complit.artsci.wustl.edu/people/paul-michael-lutzeler/>)

Rosa May Distinguished University Professor in the Humanities  
PhD, Indiana University

**Timothy Moore** (<https://classics.wustl.edu/people/timothy-moore/>)

John and Penelope Biggs Distinguished Professor of Classics  
PhD, University of North Carolina

**Dolores Pesce** (<https://music.wustl.edu/people/dolores-pesce/>)

Avis Blewett Professor of Music in Arts & Sciences  
PhD, University of Maryland

**Gerhild Scholz Williams** (<http://complit.artsci.wustl.edu/people/gerhild-williams/>)

Barbara Schaps Thomas and David M. Thomas Professor in the Humanities  
PhD, University of Washington

## Professors

**Nancy E. Berg** (<http://complit.artsci.wustl.edu/people/nancy-berg/>)

PhD, University of Pennsylvania

**Andrew Brown** (<https://rl.wustl.edu/people/j-andrew-brown/>)

PhD, University of Virginia

**Lingchei Letty Chen** (<http://complit.artsci.wustl.edu/people/letty-chen/>)

PhD, Columbia University

**Matt Erlin** (<http://complit.artsci.wustl.edu/people/matt-erlin/>)

PhD, University of California, Berkeley

**Robert K. Henke** (<http://complit.artsci.wustl.edu/people/robert-henke/>)

PhD, University of California, Berkeley

**Catherine Keane** (<https://classics.wustl.edu/people/catherine-keane/>)

PhD, University of Pennsylvania

**Stephanie Kirk** (<http://complit.artsci.wustl.edu/people/stephanie-kirk/>)

PhD, New York University

**Tabea Linhard** (<http://complit.artsci.wustl.edu/people/tabea-linhard/>)

PhD, Duke University

**Joseph Loewenstein** (<http://complit.artsci.wustl.edu/people/joe-loewenstein/>)

PhD, Yale University

**Marvin H. Marcus** (<http://ealc.wustl.edu/people/marvin-marcus/>)

PhD, University of Michigan

**Erin McGlothlin** (<http://complit.artsci.wustl.edu/people/erin-mcglathlin/>)

PhD, University of Virginia

**Angela Miller** (<https://complit.wustl.edu/people/angela-miller/>)

PhD, Yale University

**Anca Parvulescu** (<http://complit.artsci.wustl.edu/people/anca-parvulescu/>)

PhD, University of Minnesota



**Wolfram Schmidgen** (<http://complit.artsci.wustl.edu/people/wolfram-schmidgen/>)

PhD, University of Chicago

**Henry Schvey** (<https://pad.wustl.edu/people/henry-i-schvey/>)

PhD, Indiana University

**Michael Sherberg** (<https://rll.wustl.edu/people/michael-sherberg/>)

PhD, University of California, Los Angeles

**Harriet Stone** (<http://complit.artsci.wustl.edu/people/harriet-stone/>)

PhD, Brown University

## Associate Professors

**Kurt Beals** (<http://german.wustl.edu/people/kurt-beals/>)

PhD, University of California, Berkeley

**J. Dillon Brown** (<http://complit.artsci.wustl.edu/people/j-dillon-brown/>)

PhD, University of Pennsylvania

**Tili Boon Cuillé** (<http://complit.artsci.wustl.edu/people/tili-boon-cuille/>)

PhD, University of Pennsylvania

**Ignacio Infante** (<http://complit.artsci.wustl.edu/people/ignacio-infante/>)

PhD, Rutgers University

**Caroline Kita** (<http://german.wustl.edu/people/caroline-kita/>)

PhD, Duke University

**Ji-Eun Lee** ([http://ealc.wustl.edu/people/lee\\_ji-eun/](http://ealc.wustl.edu/people/lee_ji-eun/))

PhD, New York University

**Jessica Rosenfeld** ([http://english.artsci.wustl.edu/Jessica\\_Rosenfeld/](http://english.artsci.wustl.edu/Jessica_Rosenfeld/))

PhD, University of Pennsylvania

## Professor of Practice

**Matthias Goeritz**

PhD, Washington University

## Lecturer

**Philip Purchase** (<http://complit.artsci.wustl.edu/people/philip-purchase/>)

PhD, University of Southern California

## Professors Emeriti

**Robert E. Hegel** (<http://complit.artsci.wustl.edu/people/robert-hegel/>)

Liselotte Dieckmann Professor Emeritus of Comparative Literature in Arts & Sciences; Professor Emeritus of Chinese  
PhD, Columbia University

**Naomi Lebowitz** (<http://complit.artsci.wustl.edu/people/naomi-lebowitz/>)

Hortense and Tobias Lewin Distinguished Professor Emerita in the Humanities

PhD, Washington University

**Stamos Metzidakis** (<http://complit.artsci.wustl.edu/people/stamos-metzidakis/>)

PhD, Columbia University

## Degree Requirements

### PhD in Comparative Literature

The PhD in Comparative Literature program requires 60 units of course credit plus a dissertation. Course distribution normally entails the following: at least 12 core credits in comparative literature seminars, including Comp Lit 502; 12 credits in one nationally, ethnically, or geographically defined literature; and 6 credits in a second such literature. The program also requires the study of a third discipline relevant to the student's intellectual and critical concerns, such as a third literature, music, the plastic arts, philosophy, history, or film. As a minimum, students need to demonstrate — in addition to superior skills in English — superior ability in at least a second language and reading skills in a third language. Beyond the minimum, the choice and number of languages required correspond to each student's three areas of concentration. Beyond taking courses, students will take three comprehensive examinations that have both a written and oral component and that will help guide the student toward the dissertation; the third examination is a dissertation proposal.

Students interested in pursuing one of the combined degrees should apply to the appropriate language and literature program (Chinese, English, French, German, Japanese or Spanish), indicating their interest in the joint degree. The application will be vetted by the respective program and by Comparative Literature. The joint degree requires students to complete all requirements in the home discipline plus four courses in core categories in Comparative Literature, including Comp Lit 502. Students in the joint-degree programs are expected to include a comparatist component in their dissertations.

### AM in Comparative Literature

The AM in Comparative Literature may be earned along the way to the PhD; Comparative Literature normally does not admit students who intend to pursue the AM only. It requires 36 units of course credit, including CompLit 502 and three additional courses in Comparative Literature on the graduate level. The remaining 24 units may be pursued in Comparative Literature or in affiliated departments or programs. All students earning an AM in Comparative Literature must demonstrate superior skills in English and, as a minimum, reading ability in one additional language pertinent to their areas of interest. These 36 units count toward the PhD requirement. Students participating in a mentored teaching experience may teach in Comparative

Literature and/or in one of our allied programs, including language instruction. To be qualified to serve as an assistant in instruction in a language department, students may be required to take the relevant course in language pedagogy. The program strives to give students a variety of teaching experiences that prepare them for the academic market in their areas of concentration.

## Graduate Certificate in Translation Studies

With its interest in crossing the borders between languages, cultures, and national literatures, the discipline of comparative literature implicitly performs and assesses theoretically the function and value of "translation" in the widest sense of the term. The Graduate Certificate in Translation Studies offered by Comparative Literature explicitly supports both the practical turn to translation and the critical and theoretical assessment of translation in the context of globalization, multiculturalism, cultural hybridity, postcolonial theory, and interdisciplinarity. The certificate requires 15 course credits overall, 6 of which may count toward both the certificate and the PhD degree and 9 of which may be allocated only to the certificate. Applicants must already be enrolled in a PhD program at Washington University.

## Graduate Certificate in Early Modern Studies

The Graduate Certificate in Early Modern Studies enables students to develop interdisciplinary and transnational expertise outside of their home department; such expertise can generate innovative work at the dissertation level and beyond. Through courses, reading groups, summer seminars, conferences, and teaching opportunities, certificate students will come into a wider intellectual community of early modern faculty and graduate students from several departments. Students who satisfy certificate requirements will enter the Graduate Certificate in Early Modern Studies along with a PhD in their home department. The certificate takes advantage of two long-standing strengths in Early Modern Studies at Washington University: a long tradition of interdisciplinary work and a commitment to cross national and geolinguistic boundaries. In particular, Comparative Literature, where the certificate is housed, has created strong cross-departmental links between Eastern and Western departments and programs.

## Dance

The **Master of Fine Arts (MFA) program in Dance** in the Performing Arts Department at Washington University offers an innovative approach to dance technique, composition, improvisation and production. It involves an energetic interplay of studio work with professionally distinguished dance instructors, seminars with faculty who are experts in their fields, and independent studies in choreography. This two-year program will expand students' dance skills while engaging them with

current concepts of dance as an art form, as an expression of culture and identity, and as a mode of critical thinking. The overarching goal of this program is to develop each dancer's personal artistic practice while encouraging a global perspective on dance studies, performance, pedagogy and choreography.

The department offers performance experience through its repertory company, Washington University Dance Collective, for which students may audition.

Members of our dance faculty have performed with such companies as American Ballet Theatre; Alvin Ailey American Dance Theater; Dance Theatre of Harlem; National Ballet of Washington, D.C.; Dayton Contemporary Dance Company; and Utah Repertory Dance Theatre. In addition, a distinctive feature of our MFA program is that it is run in collaboration with St. Louis' Center of Creative Arts (COCA) (<http://www.cocastl.org/>), so it involves a sharing of facilities and faculty borne out of a common vision of the importance of the performing arts. As the leading dance school in the region, COCA is also the largest multidisciplinary arts organization in St. Louis, and it has a world-renowned faculty. We have a long history of engaging the talents of contemporary guest choreographers and répétiteurs from ballet and from modern and performance art who bring a broad range of challenging new processes, concepts and choreography to our students.

Contact: Christine Knoblauch-O'Neal  
Phone: 314-935-4475  
Email: [ckoneal@wustl.edu](mailto:ckoneal@wustl.edu)  
Website: <https://pad.wustl.edu/mfa-program>

## Faculty

### Dance

**Joanna Dee Das** (<https://pad.wustl.edu/people/joanna-dee-das/>)

Assistant Professor

PhD, Columbia University

Global dance history & theory; modern dance; African diasporic dance; musical theater; politics of performance

**Christine Knoblauch-O'Neal** (<https://pad.wustl.edu/people/christine-knoblauch-oneal/>)

Professor of the Practice

PhD, Texas Women's University

Ballet; applied anatomy; musical theater; performance studies

**David Marchant** (<https://pad.wustl.edu/people/david-marchant/>)

Professor of the Practice

MFA, University of Iowa

Modern dance; composition; improvisation, Alexander Technique; somatic studies

**Cecil Slaughter** (<https://pad.wustl.edu/people/cecil-slaughter/>)

Professor of the Practice  
MFA, University of Iowa  
Horton modern dance technique

**Mary-Jean Cowell** (<https://pad.wustl.edu/people/mary-jean-cowell/>)

Professor Emerita  
PhD, Columbia University  
Modern dance technique; theory and composition; dance history and ethnology

## Theater Studies

**Pannill Camp** (<https://pad.wustl.edu/people/pannill-camp/>)

Associate Professor  
PhD, Brown University  
18th-century French theater; dramatic theory; theater architecture

**Robert Henke** (<https://pad.wustl.edu/people/robert-henke/>)

Professor  
PhD, University of California, Berkeley  
Ancient and Renaissance theater and performance; comparative literature; dramatic theory

**Paige McGinley** (<https://pad.wustl.edu/people/paige-mcginley/>)

Associate Professor  
PhD, Brown University  
20th-century theater and performance; race, ethnicity and performance; American studies

**Henry I. Schvey** (<https://pad.wustl.edu/people/henry-i-schvey/>)

Professor  
PhD, Indiana University  
Modern American and European drama; Shakespeare in production; expressionism and the arts; Tennessee Williams

**Julia Walker** (<https://pad.wustl.edu/people/julia-walker/>)

Associate Professor  
PhD, Duke University  
Theatrical modernism; performance theory; history of acting

**Rhaisa Williams** (<https://pad.wustl.edu/people/rhaisa-williams/>)

PhD, Northwestern University  
Performance theory; African-American studies; gender; archival studies

## Acting and Directing

**Ron Himes** (<https://pad.wustl.edu/people/ron-himes/>)

Henry E. Hampton Jr. Artist-in-Residence  
BA, Washington University  
African-American theater

**Jeffery Matthews** (<https://pad.wustl.edu/people/jeffery-matthews/>)

Professor of Practice  
MFA, Virginia Commonwealth University  
Acting; directing; voice and speech

**Annamaria Pileggi** (<https://pad.wustl.edu/people/annamaria-pileggi/>)

Professor of Practice  
MFA, Brandeis University  
Acting; movement; musical theater; robotics and expressive simulation; theatre for social change

**Andrea Urice** (<https://pad.wustl.edu/people/andrea-urice/>)

Teaching Professor  
MFA, University of Virginia  
Directing; acting; creative studies

**William Whitaker** (<https://pad.wustl.edu/people/william-whitaker/>)

Professor of Practice  
MFA, Florida Atlantic University  
Acting; directing

## Design and Technical Theater

**Dominique Glaros** (<https://pad.wustl.edu/people/dominique-glaros/>)

Lecturer  
MFA, University of Cincinnati-College Conservatory of Music  
Costume Design

**Robert Mark Morgan** (<https://pad.wustl.edu/people/robert-mark-morgan/>)

Teaching Professor  
MFA, San Diego State University  
Scenic design

**Sean Savoie** (<https://pad.wustl.edu/people/sean-savoie/>)

Senior Lecturer  
MFA, University of Cincinnati-College Conservatory of Music  
Lighting design; production management

## Playwriting

**Carter W. Lewis** (<https://pad.wustl.edu/people/carter-w-lewis/>)

Senior Lecturer, Senior Playwright-in-Residence  
MA, University of Oklahoma  
Playwriting; dramaturgy, A.E. Hotchner Playwriting Festival

## Degree Requirements

### MFA in Dance

**Degree Requirements:** 60 units (15 units/semester) during two years to degree

At the end of their first year, students will propose a culminating project — typically a dance concert or another public presentation of creative work largely expressed in dance — and submit a paper about its production, including analysis and critique, that they will defend orally.

## I. Technical Development: 13 units

### 8 units from the following:

- Dance 401 Theory and Technique of Modern Dance V (2 units; may be repeated once)
- Dance 4021 Theory and Technique of Modern Dance VI (2 units; may be repeated once)
- Dance 415 High Intermediate Ballet I (2 units; may be repeated once)
- Dance 416 High Intermediate Ballet II (2 units; may be repeated once)
- Dance 4281 Classical Ballet III (2 units; may be repeated once)
- Dance 4291 Classical Ballet IV (2 units; may be repeated once)

### Plus an additional 5 units from the above or from the following:

- Dance 403 Jazz III (2 units; may be repeated once)
- Dance 407 Topics in Dance Techniques (variable credit; 3 units max)
- Dance 418 Variations in the Ballet (1 unit)
- Dance 423 Pointe Technique (1 unit)

## II. Choreography and Performance: 20 units

- Dance 508 Dance Composition Laboratory I: Exploring Process and Format (3 units)
- Dance 509 Dance Composition Laboratory II: Exploring Alternative Venues and Audience Connections (3 units)
- Dance 510 Approaches to Improvisation and Spontaneous Composition (3 units)
- Dance 511, 5112, 5113 Independent Choreography Project I, II, III (3 units per course, for a total of 9 units)
- Dance 512 Performance Artistry (1 unit; must be taken twice, for a total of 2 units)

## III. Research and Integrated Learning: 12 units

### Required:

- Dance 520 Research Methods Colloquium (3 units)

### Plus 9 units from the following:

- Dance 413 Modern Dance and the African American Legacy II (2 units)
- Dance 426 Performing the Political in American Dance (3 units)
- Dance 433 Performing Gender and Sexuality in America (3 units)
- Dance 506 Topics in Contemporary Arts Practice Research (3 units)
- Dance 517 Workshop in Dance as Cultural Identity (3 units)
- Dance 519 Guest Artist Residency Workshop (1 unit; may be repeated once)
- Dance 530 Theories of the Body in Performance (3 units)
- Dance 543 Critical Thinking in Western Theatrical Dance (3 units)

## IV. Electives: 9 units

Students must complete 9 units at the 400 level or above, with at least one course at the 500 level. These units may be from any areas of the performing arts or relevant areas in other departments or programs.

MFA students are encouraged to pursue courses that support or help to define their individual trajectories as artists. These courses may include 400- or 500-level Performing Arts Department courses in costumes, stage lighting and design, or theater history. Students may also wish to pursue study in the departments of Women, Gender, and Sexuality Studies; Music; Psychological & Brain Sciences; Anthropology; Art History and Archaeology; or other areas relevant to the student's particular development.

## V. Mentored Teaching Experience

- LGS 600  
Each Mentored Teaching Experience will be fashioned around the student's interests, when possible, and guided by a full-time member of the dance faculty. For more information, visit the Mentored Teaching Experiences (<http://pad.artsci.wustl.edu/mentored-teaching-experiences/>) webpage.

## VI. Final Project: 6 units

- Dance 550 Final Project I (3 units); to be taken during the fall semester of the student's second year
- Dance 551 Final Project II (3 units); to be taken during the spring semester of the student's second year

At the end of the first year, the MFA student will propose a plan for the final project and form a final project committee that will evaluate the final project. A concert is the typical format of the MFA final project. This concert or public presentation of the student's creative work must be largely expressed in dance. The concert or public presentation will be followed by the submission of a written Production Book that includes analysis and critique. In some cases, the written documents may include research

related to the production, or a complementary research paper may accompany the Production Book. The student will present an oral defense of the work in front of an invited audience and submit a final version of the written component, as well as a DVD of the concert or public presentation, for archival purposes within the department.

## Data Science in the Humanities

In response to increasing graduate involvement in the Humanities Digital Workshop (HDW) and its associated faculty-led projects, we offer a Graduate Certificate in Data Science in the Humanities (DASH), which combines traditional humanities inquiry with computational methods and analysis. All graduate students in the humanities, regardless of their home PhD program, are welcome to pursue this certificate. A data-driven approach can complement and enrich any humanities field, and the certificate features appreciable cross-disciplinary engagement. Recent HDW projects have been supervised by faculty in fields as diverse as history; music; German; Asian and Near Eastern languages and literature; American studies; philosophy-neuroscience-psychology; women, gender, and sexuality studies; and English. Our goals are to enrich the analytic skills that students can bring to bear on research in their home disciplines and to enable them to contribute thoughtfully and resourcefully in other disciplines of the humanities.

The curriculum is designed to enable students to think critically about digital culture and media and to apply emerging computational techniques to the study of the humanities. It combines training in data management, statistics, text analysis, geospatial analysis, digital prosopography, data visualization, and information design with courses that reflect critically on digital culture, algorithmic mediation, and forms of new media. The curriculum will acquaint PhD students with new techniques and methodologies and foster an awareness of their theoretical implications.

This certificate program is distinguished by its emphasis on collaborative research and pedagogical development. Students will participate on a faculty project in the HDW; most fulfill this requirement through the HDW summer workshop, an eight-week program that pairs faculty with a small group of graduate and undergraduate fellows. The collaborative environment, combined with weekly project meetings and skills workshops, makes these immersive summer programs an unusual counterpoint to traditional graduate education. The DASH certificate also requires the 3-unit course IPH 590 Digital Humanities in the Classroom, ensuring that pedagogical development accompanies more traditional courses.

## Application

Students interested in pursuing the DASH graduate certificate should contact the program director (jfloewen@wustl.edu?subject=DASH%20Grad%20Certificate). PhD students in good standing should apply before the end of their second year.

Master's students are not eligible. Applicants should write a letter detailing their interest in data science or digital humanities as well as any relevant background; their letter should be supplemented by a letter of support from the director of graduate studies of their home doctoral program. Upon review, the DASH program director will make recommendations for admission to the dean of the Graduate School for final approval. In order to receive the DASH graduate certificate, students must fulfill all of the PhD requirements of their home department. The certificate is granted to the student upon completion of the PhD.

Contact: Joseph F. Loewenstein  
Email: jfloewen@wustl.edu  
Website: <https://dash.wustl.edu/>

## Faculty

### Participating Faculty

**Jami Ake** (<https://artsci.wustl.edu/faculty-staff/jami-ake/>)

Assistant Dean  
PhD, Indiana University

**Anupam Basu** (<https://english.artsci.wustl.edu/people/anupam-basu/>)

Assistant Professor  
PhD, University of Wisconsin–Madison

**Kurt Beals** (<https://german.wustl.edu/people/kurt-beals/>)

Assistant Professor  
PhD, University of California, Berkeley

**Matt Erlin** (<https://german.wustl.edu/people/matt-erlin/>)

Professor; Chair, Department of Germanic Languages and Literatures  
PhD, University of California, Berkeley

**Peter Kastor** (<https://history.wustl.edu/people/peter-kastor/>)

Professor; Chair, Department of History  
PhD, University of Virginia

**Doug Knox** (<https://insideartsci.wustl.edu/people/douglas-knox/>)

Assistant Director, Humanities Digital Workshop  
MA, University of Chicago

**Joe Loewenstein** (<https://english.wustl.edu/people/joe-loewenstein/>)

Professor; Director, Humanities Digital Workshop  
PhD, Yale University

**Melanie Micir** (<https://english.artsci.wustl.edu/people/melanie-micir/>)

Assistant Professor  
PhD, University of Pennsylvania

**Steven B. Miles** (<https://history.wustl.edu/people/steven-b-miles/>)

Associate Professor  
PhD, University of Washington

**Stephen Pentecost** (<https://insideartsci.wustl.edu/people/stephen-pentecost/>)

Senior Digital Humanities Specialist  
MA, Washington University

**Lynne Tatlock** (<https://german.wustl.edu/people/lynne-tatlock/>)

Hortense and Tobias Lewin Distinguished Professor in the Humanities  
PhD, Indiana University

**Abram Van Engen** (<https://english.wustl.edu/people/abram-van-engen/>)

Associate Professor  
PhD, Northwestern University

## Degree Requirements

### Graduate Certificate in Data Science in the Humanities

15 units are required to complete the DASH graduate certificate. Most students are able to count 6 units dually between the requirements of the certificate and the doctoral degree requirements. Students should consult with their doctoral adviser and the DASH graduate certificate adviser to determine which courses may be applied to both degrees.

**To obtain the required 15 units, students must take the following:**

- 6 units from the core curriculum (<https://dash.wustl.edu/graduate-certificate/core-curriculum/>)
- 3 units from participating in a faculty project in the Humanities Digital Workshop (HDW), which most students will undertake during the HDW summer program
- IPH 590 Digital Humanities in the Classroom (3 units)
- 3 units from the list of electives (<https://dash.wustl.edu/graduate-certificate/electives/>)

## Earth and Planetary Sciences

The Department of Earth and Planetary Sciences offers **PhD and AM degrees**. This is one of the few departments in the country with an integrated program of graduate instruction and research that treats Earth as a planet and that makes direct use of knowledge gained by exploring the solar system. Our field is changing rapidly and becoming more interdisciplinary as links emerge among geology, geochemistry, geophysics and geobiology. New opportunities are developing as research in natural hazards, energy sources and the environment become more important to the global economy and as new space missions are developed to explore the solar system. The

relatively small size of the department engenders a friendly and personal place that offers a lot of personal interaction with faculty and researchers. Our graduate students have the opportunity to use cutting-edge laboratory equipment, high-speed parallel computers, and the latest planetary mission data throughout the course of their research. They travel to field sites around the world and publish research in the leading scientific journals.

The PhD program is open to qualified students who have previously specialized in Earth sciences, physics, chemistry, biology, environmental science, soil science, mathematics or engineering. Both students with traditional degrees in geoscience areas and those with diverse academic backgrounds regularly enroll in our program because of the inherently interdisciplinary nature of our field. Doctoral education has a strong research emphasis that begins immediately upon arrival and that emphasizes modern, quantitative approaches to studying Earth, planetary, and environmental systems. Graduate research may involve field and laboratory studies as well as theory and advanced computation. Students earn the AM degree during the first phase of the PhD program; the department generally does not admit students for terminal AM degrees. After degree completion, our graduates go on to careers in academia, research laboratories, government agencies and the private sector, serving as leaders in the field of earth and planetary sciences.

Phone: 314-935-5610  
Email: [eps@wustl.edu](mailto:eps@wustl.edu)  
Website: <http://eps.wustl.edu/graduate>

## Faculty

### Chair

**Viatcheslav S. Solomatov** (<https://eps.wustl.edu/people/slava-solomatov/>)

PhD, Moscow Institute of Physics and Technology  
and the Schmidt Institute of Physics of the Earth

### Endowed Professors

**Raymond E. Arvidson** (<https://eps.wustl.edu/people/raymond-e-arvidson/>)

James S. McDonnell Distinguished University Professor  
PhD, Brown University

**Feng Sheng Hu** (<https://eps.wustl.edu/people/feng-sheng-hu/>)

Dean of the Faculty of Arts & Sciences  
Professor of Biology and of Earth and Planetary Sciences  
Lucille P. Markey Distinguished Professor in Arts & Sciences  
PhD, University of Washington

**Bradley L. Jolliff** (<https://eps.wustl.edu/people/bradley-l-jolliff/>)

Director of the McDonnell Center for the Space Sciences  
Scott Rudolph Professor of Earth and Planetary Sciences  
PhD, South Dakota School of Mines and Technology

**Douglas A. Wiens** (<https://eps.wustl.edu/people/douglas-wiens/>)

Robert S. Brookings Distinguished Professor  
PhD, Northwestern University

## Professors

**Jeffrey G. Catalano** (<https://eps.wustl.edu/people/jeffrey-g-catalano/>)

PhD, Stanford University

**Robert F. Dymek** (<https://eps.wustl.edu/people/robert-f-dymek/>)

PhD, California Institute of Technology

**M. Bruce Fegley** (<https://eps.wustl.edu/people/bruce-fegley-jr/>)

PhD, Massachusetts Institute of Technology

**David A. Fike** (<https://eps.wustl.edu/people/david-fike/>)

Director of Environmental Studies  
PhD, Massachusetts Institute of Technology

**William B. McKinnon** (<https://eps.wustl.edu/people/william-b-mckinnon/>)

PhD, California Institute of Technology

**Philip A. Skemer** (<https://eps.wustl.edu/people/philip-skemer/>)

PhD, Yale University

**Jennifer Smith** (<https://eps.wustl.edu/people/jennifer-r-smith/>)

Vice Provost for Educational Initiatives  
PhD, University of Pennsylvania

**William Hayden Smith** (<https://eps.wustl.edu/people/william-h-smith/>)

PhD, Princeton University

**Michael E. Wysession** (<https://eps.wustl.edu/people/michael-e-wysession/>)

PhD, Northwestern University

## Associate Professors

**Alexander S. Bradley** (<https://eps.wustl.edu/people/alexander-s-bradley/>)

PhD, Massachusetts Institute of Technology

**Paul Byrne** (<https://eps.wustl.edu/people/paul-byrne/>)

PhD, Trinity College Dublin

## Assistant Professors

**Bronwen L. Konecky** (<https://eps.wustl.edu/people/bronwen-konecky/>)

PhD, Brown University

**Michael Krawczynski** (<https://eps.wustl.edu/people/michael-j-krawczynski/>)

PhD, Massachusetts Institute of Technology

**Claire Masteller** (<https://eps.wustl.edu/people/claire-masteller/>)

PhD, University of California, Santa Cruz

**Rita Parai** (<https://eps.wustl.edu/people/rita-parai/>)

PhD, Harvard University

**Kun Wang** (<https://eps.wustl.edu/people/kun-wang/>)

PhD, Washington University

## Professors Emeriti

**Robert E. Criss** (<https://eps.wustl.edu/people/robert-e-criss/>)

PhD, California Institute of Technology

**Ghislaine Crozaz** (<https://eps.wustl.edu/people/ghislaine-crozaz/>)

PhD, Université Libre de Bruxelles

**Jill D. Pasteris** (<https://eps.wustl.edu/people/jill-d-pasteris/>)

PhD, Yale University

**Frank A. Podosek** (<https://eps.wustl.edu/people/frank-podosek/>)

PhD, University of California, Berkeley

## Degree Requirements

### PhD in Earth and Planetary Sciences

The degree requirements for a PhD in Earth and Planetary Sciences are intended to ensure that all students develop independence and originality of thought and that they acquire knowledge of sufficient breadth and depth to be scientific leaders in the field. Students are required to complete eight courses, five of which must be taken in the Department of Earth and Planetary Sciences. Students entering with an AM degree in a closely related field may waive two of these course requirements if approved by the faculty.

Students begin research early in the program, completing a small project during their second semester. At this time, each student selects a faculty member to serve as the major adviser as well as two additional faculty members to provide further guidance; these three faculty members comprise the student's Research Advisory Committee. During their second year, students continue their research as they work toward the oral examination that occurs at the end of their second year, which requires the preparation of a research paper, an oral presentation of research results, and a question-and-answer

session with the Research Advisory Committee. Students are also required to obtain experience in teaching during their studies. The PhD program culminates in the writing of a dissertation and its defense in an oral presentation.

## AM in Earth and Planetary Sciences

The department offers two tracks for the completion of the AM degree. Both tracks require the completion of six courses, four of which must be taken in the Department of Earth and Planetary Sciences. One track toward the AM degree is a component of the PhD degree program, with students being awarded an AM upon successful completion of the oral examination that occurs during the second year of the program. The other track is for students seeking a terminal AM degree. This track requires the completion of a master's thesis and its defense in an oral presentation by the end of the second year of study.

## East Asian Languages and Cultures

The Department of East Asian Languages and Cultures (EALC) offers advanced degrees in the traditional and modern literatures and cultures of East Asia based on substantial knowledge of at least one East Asian language. EALC offers the **Master of Arts (AM) in Chinese, Japanese, and East Asian Studies** as well as the **Doctor of Philosophy (PhD) in Chinese Language and Literature, Japanese Language and Literature, Chinese and Comparative Literature, and Japanese and Comparative Literature**.

The goal of these programs is to produce scholars who are well trained in their chosen languages, firmly grounded in the relevant linguistic and literary traditions, and thoroughly conversant with the critical discourses (indigenous and Western) relevant to their fields. With research strengths that cover premodern poetry and poetics, gender and sexuality, religious texts and traditions, narrative, memoir, dramatic literature, postmodernity and more, our internationally recognized faculty is poised to offer graduate students careful and consistent mentoring. By admitting only a select number of graduate students each year, our programs allow individualized guidance. After the completion of these programs at the PhD level, candidates have extended firsthand exposure to the modern societies whose languages, literatures and cultures they study as well as significant teaching experience in both language and literature classes.

Phone: 314-935-4448  
Email: ealc@wustl.edu  
Website: <http://ealc.wustl.edu>

## Faculty

### Chair

**Lingchei Letty Chen** (<https://ealc.wustl.edu/people/lingchei-letty-chen/>)  
PhD, Columbia University

### Professors

**Rebecca Copeland** (<http://ealc.wustl.edu/people/rebecca-copeland/>)  
PhD, Columbia University

**Marvin H. Marcus** (<http://ealc.wustl.edu/people/marvin-marcus/>)  
PhD, University of Michigan

### Associate Professors

**Ji-Eun Lee** (<https://ealc.wustl.edu/people/ji-eun-lee/>)  
PhD, Harvard University

**Zhao Ma** (<https://ealc.wustl.edu/people/zhao-ma/>)  
PhD, Johns Hopkins University

**Jamie Newhard** (<http://ealc.wustl.edu/people/jamie-newhard/>)  
PhD, Columbia University

### Assistant Professors

**Jianqing Chen** (<https://ealc.wustl.edu/people/jianqing-chen/>)  
PhD, University of California, Berkeley

**Hyeok Hweon Kang** (<https://ealc.wustl.edu/people/hyeok-hweon-kang/>)  
PhD, Harvard University

### Professor of Practice

**Virginia S. Marcus** (<http://ealc.wustl.edu/people/ginger-marcus/>)  
MA, University of Michigan, New York University

### Teaching Professors

**Shino Hayashi** (<http://ealc.wustl.edu/people/shino-hayashi/>)  
MA, University of Wisconsin, University of Minnesota

**Mijeong Mimi Kim** (<https://ealc.wustl.edu/people/mijeong-mimi-kim/>)  
EdD, University of San Francisco

**Xia Liang** (<https://ealc.wustl.edu/people/xia-liang/>)  
MA, Beijing Normal University

### Senior Lecturers

**Wenhui Chen** (<https://ealc.wustl.edu/people/wenhui-chen/>)  
MA, National Taiwan Normal University

**Ke Nie** (<https://ealc.wustl.edu/people/ke-nie/>)  
MA, Capital Normal University



**Wei Wang** (<https://ealc.wustl.edu/people/wei-wang/>)

MA, University of Minnesota, Beijing Language and Culture University

## Lecturers

**Hea-Young Chun** (<https://ealc.wustl.edu/people/hea-young-chun/>)

MA, Seoul National University

**Megumi Iida** (<https://ealc.wustl.edu/people/megumi-iida/>)

MA, University of Arizona

**Taewoong Kim** (<http://ealc.wustl.edu/people/taewoong-kim/>)

PhD, The University of Oklahoma

**Jiyeon Lee** (<https://ealc.wustl.edu/people/jiyeon-lee/>)

MA, University of Oregon, Eugene

**Zihan Qin** (<http://ealc.wustl.edu/people/zihan-qin/>)

MA, University of Iowa

**Jingyi Wang** (<http://ealc.wustl.edu/people/jingyi-wang/>)

MA, Capital Normal University

**Mano Yasuda** (<https://ealc.wustl.edu/people/mano-yasuda/>)

PhD, The University of Oklahoma

## Professors Emeriti

**Beata Grant** (<https://ealc.wustl.edu/people/beata-grant/>)

PhD, Stanford University

**Robert Hegel** (<https://ealc.wustl.edu/people/robert-e-hegel/>)

PhD, Columbia University

**James C. Shih**

PhD, University of California, Berkeley

**Betty Pei-shan Yue**

MA, Washington University

## Degree Requirements

### Master of Arts in Chinese or Japanese

The Master of Arts in Chinese or Japanese requires 36 units of graduate study in Chinese or Japanese, which may include courses from related fields such as East Asian Studies and Comparative Literature. The degree is completed in four semesters, and requirements include the following:

- Language proficiency through the fourth level and two semesters of classical Chinese or Japanese (No more than 12 units of language preparation may be applied to the degree.)
- At least two semesters of literary history courses

- At least one course in critical theory, methodology or research methods

- Either a master's thesis, a master's essay, or the successful completion of a comprehensive written exam

### Master of Arts in East Asian Studies

The Master of Arts in East Asian Studies, which requires 30 units of graduate study, offers advanced interdisciplinary courses in Chinese, Japanese and Korean studies in areas that include literature, history, anthropology and art history. Students are required to take the core seminar, normally during their first semester, and at least two substantial writing seminars. Students must achieve at least third-year proficiency in one Asian language, with no more than 12 units of language applying to the degree. For the exit requirement, a student may choose to write a master's thesis or master's essay, or they may take the exit exam. The degree can be completed in three or four semesters; with the thesis option, the degree requires four semesters.

### PhD in Chinese or Japanese Language and Literature

The PhD in Chinese or Japanese Language and Literature combines the study of Chinese or Japanese literature with literary theory and critical methodology. Students are required to take courses in Chinese or Japanese literature, in another East Asian literature or culture, and in literary and cultural theory and critical methodology; some of these courses may focus on other literatures. Doctoral students must demonstrate native or near-native competence both in English and in either Chinese or Japanese. If needed for research in the chosen area of specialization, sufficient proficiency in one or more additional languages may be required.

Students must pass a qualifying examination at the end of their first year and three comprehensive examinations at the end of their third year. In addition, before the beginning of the fourth year, students must submit a dissertation prospectus for committee approval. Mastery of the relevant research language(s) must be demonstrated before students undertake their comprehensive examinations. All students gain teaching experience in both language and literature with extensive hands-on instruction in pedagogical methodologies.

### PhD in Chinese or Japanese and Comparative Literature

The PhD in Chinese or Japanese and Comparative Literature is offered jointly with the Comparative Literature program. The focus of these programs is comparison of the contents, theoretical bases, and methodologies of Chinese or Japanese literature and a second literature (Western or non-Western), within the contexts of a familiarity with the cultural and historical backgrounds of the literary works and of the critical and

historical methodology of modern literary study. Whether or not applicants enter the program with a relevant master's degree, the requirements for our AM in Chinese or Japanese must be met as part of the requirements for the joint PhD degree. Required courses, the qualifying examination, comprehensive examinations, the dissertation prospectus, the demonstration of language proficiency, and teaching opportunities are analogous to those of the PhD programs solely in Chinese or Japanese.

## Joint AM Programs

The **Joint Law and East Asian Studies program**, which leads to the Juris Doctor (JD) (<http://bulletin.wustl.edu/law/juris-doctor/>) and Master of Arts degrees, combines the regular curriculum of the School of Law and special strengths in international legal studies with the broad offerings of the interdisciplinary East Asian Studies program. The joint program offers an integrated curriculum with courses that may be applied toward both degrees. In this joint program, 9 units are cross-counted between the degrees; the program can be completed in seven semesters. Applicants must apply to and be accepted by both programs.

The **Joint Business and East Asian Studies program**, which leads to an MBA from the Olin Business School (<https://olin.wustl.edu>) and an AM in East Asian Studies, offers the opportunity to develop an expertise in business practice within an East Asian context. In this joint program, 6 units are cross-counted between the degrees; the program can be completed in six semesters. Applicants must apply to and be accepted by both programs.

## Economics

The Department of Economics at Washington University has a strong reputation for preparing high-quality PhD students for academic positions as well as for private- and public-sector jobs. We are seeking qualified students from any field who possess strong analytical abilities in mathematics and statistics and who are willing to complete a challenging **Doctor of Philosophy (PhD) degree in Economics**. At this time, a terminal Master of Arts (AM) is available only to qualified Washington University undergraduates.

The department offers students financial support while they remain in good academic standing.

Phone: 314-935-5670  
Email: [economics@wustl.edu](mailto:economics@wustl.edu)  
Website: <http://economics.wustl.edu/graduate>

## Faculty

### Chair

**Gaetano Antinolfi** (<https://economics.wustl.edu/people/gaetano-antinolfi/>)

Professor  
Weidenbaum Center Research Fellow  
PhD, Cornell University  
Macroeconomics; monetary and international economics

### Associate Chair

**Yongseok Shin** (<https://economics.wustl.edu/people/yongseok-shin/>)

Douglass C. North Distinguished Professor of Economics  
PhD, Stanford University  
Macroeconomics; economic growth

### Endowed Professors

**Costas Azariadis** (<https://economics.wustl.edu/people/costas-azariadis/>)

Edward Mallinckrodt Distinguished Professor in Arts & Sciences  
Weidenbaum Center Research Fellow  
PhD, Carnegie Mellon University  
Macroeconomic dynamics; economic development; monetary and fiscal policy

**Michele Boldrin** (<https://economics.wustl.edu/people/michele-boldrin/>)

Joseph Gibson Hoyt Distinguished Professor in Arts & Sciences  
Graduate Admissions Officer  
PhD, University of Rochester  
Economic theory; economic growth; macroeconomics

**Francisco (Paco) Buera** (<https://economics.wustl.edu/people/francisco-buera/>)

Sam B. Cook Professor of Economics  
PhD, University of Chicago  
Macroeconomics; macroeconomic development

**Steven Fazzari** (<https://economics.wustl.edu/people/steven-fazzari/>)

Director of the Weidenbaum Center on the Economy, Government, and Public Policy  
Bert A. and Jeanette L. Lynch Distinguished Professor of Economics  
PhD, Stanford University  
Macroeconomics; Keynesian economics; investment and finance

**Rodolfo Manuelli** (<https://economics.wustl.edu/people/rodolfo-manuelli/>)

James S. McDonnell Distinguished University Professor  
PhD, University of Minnesota  
Economic growth and development economics; macro and monetary economics

**Bruce Petersen** (<https://economics.wustl.edu/people/bruce-petersen/>)

Director of Undergraduate Studies  
Bert & Jeanette Lynch Distinguished Professor of Economics  
Weidenbaum Center Research Fellow  
PhD, Harvard University  
Financial economics; applied microeconomics

**Werner Ploberger** (<https://economics.wustl.edu/people/werner-ploberger/>)

Thomas H. Eliot Distinguished Professor in Arts & Sciences  
PhD, Vienna University of Technology  
Statistics; econometric methodology; time-series econometrics

**Robert Pollak** (<https://economics.wustl.edu/people/robert-pollak/>)

Hernreich Distinguished Professor of Economics  
PhD, Massachusetts Institute of Technology  
Environmental economics; microeconomics/industrial organization; business and government; political economy

**Ping Wang** (<https://economics.wustl.edu/people/ping-wang/>)

Seigle Family Professor  
NBER Research Associate  
PhD, University of Rochester  
Growth/development; money/macro; economic theory; spatial/health economics

## Professors

**Marcus Berliant** (<https://economics.wustl.edu/people/marcus-berliant/>)

Director of Graduate Studies  
PhD, University of California, Berkeley  
Public finance; mathematical economics; urban economics

**George-Levi Gayle** (<https://economics.wustl.edu/people/george-levi-gayle/>)

PhD, University of Pittsburgh  
Econometric theory; contract theory; labor economics; personnel economics; corporate governance

**Limor Golan** (<https://economics.wustl.edu/people/limor-golan/>)

PhD, University of Wisconsin–Madison  
Labor economics; applied microeconomics; applied econometrics

**John Nachbar** (<https://economics.wustl.edu/people/john-nachbar/>)

PhD, Harvard University  
Economic theory

**Brian Rogers** (<https://economics.wustl.edu/people/brian-rogers/>)

PhD, California Institute of Technology  
Microeconomic theory, in particular, the fields of network formation, social learning, and applied game theory

**Jonathan Weinstein** (<https://economics.wustl.edu/people/jonathan-weinstein/>)

PhD, Massachusetts Institute of Technology  
Microeconomic theory, game theory

## Associate Professor

**Sukkoo Kim** (<https://economics.wustl.edu/people/sukkoo-kim/>)

PhD, University of California, Los Angeles  
Economic history; urban and regional economics; trade and development

## Assistant Professors

**Ana Babus** (<https://economics.wustl.edu/people/ana-babus/>)

PhD, Erasmus University Rotterdam

Microeconomic theory; finance

**Ian Fillmore** (<https://economics.wustl.edu/people/ian-fillmore/>)

PhD, University of Chicago  
Intersection of industrial organization, labor economics, and econometrics; economics of education and education markets

**Sanghmitra Gautam** (<https://economics.wustl.edu/people/sanghmitra-gautam/>)

PhD, University College London  
Development economics; applied microeconometrics; public economics

**Andrew Jordan** (<https://sites.google.com/view/andrewjordanecon/home/>)

PhD, University of Chicago  
Labor markets, discrimination, and criminal justice

**SangMok Lee** (<https://economics.wustl.edu/people/sangmok-lee/>)

PhD, California Institute of Technology  
Microeconomics

## Teaching Professor

**Sudeshna Bandyopadhyay** (<http://economics.wustl.edu/people/sudeshna-bandyopadhyay/>)

PhD, University of Maryland

## Senior Lecturer

**Maria Canon** (<https://economics.wustl.edu/people/maria-cannon/>)

PhD, University of Rochester

## Lecturer

**Grace J. Yan Johnson** (<http://economics.wustl.edu/people/grace-junhui-yan-johnson/>)

PhD, Oklahoma State University

## Postdoctoral Fellow

**Chen Wei** (<https://chenweipurdue.com/>)  
PhD, Purdue University

## Affiliated Faculty

**Mariagiovanna Baccara** (<https://olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=mbaccara>)  
PhD, Princeton University

**Scott A. Baker** ([http://law.wustl.edu/faculty\\_profiles/profiles.aspx?id=7283](http://law.wustl.edu/faculty_profiles/profiles.aspx?id=7283))  
JD, University of Chicago  
PhD, University of North Carolina at Chapel Hill

**James Bullard** ([http://economics.wustl.edu/James\\_Bullard/](http://economics.wustl.edu/James_Bullard/))  
PhD, Indiana University

**John Drobak** (<https://law.wustl.edu/faculty-staff-directory/profile/john-n-drobak/>)  
JD, Stanford University

**Philip H. Dybvig** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=Dybvig>)  
PhD, Yale University

**Leonard Green** (<http://economics.wustl.edu/people/leonard-green/>)  
PhD, State University of New York

**Barton Hamilton** (<https://olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=hamiltonb>)  
PhD, Stanford University

**Oksana Leukhina** (<https://sites.google.com/view/oksanaleukhina/>)  
PhD, University of Minnesota

**Glenn MacDonald** (<https://olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=macdonald>)  
PhD, University of Rochester

**Fernando Martin** (<https://research.stlouisfed.org/econ/martin/sel/>)  
PhD, University of Pennsylvania

**Alexander Monge-Naranjo** (<http://economics.wustl.edu/people/alexander-monge-naranjo/>)  
PhD, University of Chicago

**Camillo Padoa-Schioppa** (<http://neurosci.wustl.edu/People/Faculty/camillo-padoa-schioppa/>)  
PhD, Massachusetts Institute of Technology

**B. Ravikumar** (<http://economics.wustl.edu/people/b-ravikumar/>)  
PhD, University of Iowa

**Paulia Restrepo-Echavarria** (<https://research.stlouisfed.org/econ/restrepo-echavarria/sel/>)  
PhD, University of California, Los Angeles

**Juan Sanchez** (<https://economics.wustl.edu/people/juan-sanchez/>)  
PhD, University of Rochester

**Guillaume Vandembroucke** (<https://research.stlouisfed.org/econ/vandembroucke/sel/>)  
PhD, University of Rochester

## Professors Emeriti

**Lee K. Benham** ([http://economics.wustl.edu/people/Lee\\_Benham/](http://economics.wustl.edu/people/Lee_Benham/))  
PhD, Stanford University

**David Levine** (<http://www.dklevine.com/>)  
John H. Biggs Distinguished Professor Emeritus  
PhD, Massachusetts Institute of Technology

**Wilhelm Neufeind** ([http://economics.wustl.edu/people/Wilhelm\\_Neufeind/](http://economics.wustl.edu/people/Wilhelm_Neufeind/))  
PhD, Universität Bonn

## Degree Requirements

### Accelerated AM in Economics

The Department of Economics offers a Five-Year Accelerated Master's Degree to qualified Arts & Sciences students at Washington University. More information about the Five-Year Accelerated Master's Degree (<https://economics.wustl.edu/five-year-accelerated-masters-degree/>) program requirements and application process can be found on the department website.

## PhD in Economics

### General Course Requirements

The PhD in Economics takes five years to complete and requires at least two years of courses in 500-level classes with a 3.0 grade-point average. Students may transfer up to 24 units of graduate credits completed elsewhere but are advised to make such a transfer only after consultation with the director of graduate studies.

Courses taken must include the following:

1. Microeconomic Theory and Macroeconomic Theory: 12 units (Econ 501, Econ 502, Econ 503, Econ 504); and
2. Quantitative methods and econometrics: 9 units (Econ 511, Econ 512, Econ 5161).

## An Ideal Chronology of PhD Study

### Summer Before the First Year (August)

- Mathematics Review and Statistics Review

### Year 1

Core Courses:

Fall Semester	Spring Semester
501 Macroeconomics I	502 Macroeconomics II
503 Microeconomics I	504 Microeconomics II
511 Quantitative Methods I	512 Quantitative Methods II
5161 Applied Econometrics	

**Year 2**

- Preliminary exams in late August, retake preliminary exams (if necessary) in January
- Field courses
- Research paper proposal

**Year 3**

- Complete research paper
- Field courses
- Dissertation proposal

**Year 4**

- Write dissertation
- Prepare and present job market paper

**Year 5**

- Enter the job market
- Finish and defend the dissertation

More information on degree requirements can be found on the Department of Economics (<http://economics.wustl.edu>) website.

## Education

The Department of Education offers full-time programs for graduates who desire a **Master of Arts in Teaching (MAT)**, a **Master of Arts in Education (MAEd)**, or a **Doctor of Philosophy (PhD) in Education**. In addition, the department offers a **Graduate Certificate Program in Higher Education (GCPHE)** for current Washington University doctoral students.

The teacher certification master's programs are ideal for recent graduates who have few if any formal courses in education. The **Master of Arts in Teaching (MAT)** is for students seeking secondary teacher certification in a specific subject area; the **Master of Arts in Education (MAEd)** is for students seeking elementary teacher certification. Students interested in the elementary certification program may also consider the MAEd/MSW (<http://bulletin.wustl.edu/brownschool/msw-maed/>) joint-degree program with the Brown School. The Teacher Education program principles include a commitment to an equitable and just education for all students; a knowledge of both the subject(s) to be taught and best practices in pedagogy; and the enactment of the role of teacher-as-inquirer.

In addition, through University College, the department offers part-time students the opportunity to earn teacher certification (elementary and secondary) through a non-degree post-baccalaureate program; it also offers those currently working in the classroom the opportunity to earn an MAEd through evening classes. For more information about part-time programs, visit the University College – Education (p. 175) page of this *Bulletin*.

The **PhD in Education** is aimed at strengthening and deepening the student's analytical understanding of education in both research and practice. Students working toward a PhD in Education are expected to acquire an understanding of education as a complex social, cultural, moral, and political activity undergirded by a commitment to advancing educational equity and countering the status quo. Students further engage with education as a field of study with rich literature bases and strong ties to disciplinary knowledge, classroom practice, and a variety of technologies. Through the PhD in Education, students work closely with our faculty who bring special interests and expertise to the examination of educational interactions in such contexts as schools, families, and other cultural institutions. Students are expected to acquire theoretical and empirical expertise in an area of concentration — Educational Policy Studies or Educational Psychology — even as they demonstrate their broader understanding of educational processes and problems. Moreover, students are expected to acquire methodological competence in empirical inquiry and to pursue research questions that are of interest and import for the student individually as well as for a larger educational community. Graduates of the PhD program will be prepared to join the community of professional scholars and educators who contribute to our understanding of the complexity of education.

The **Graduate Certificate Program in Higher Education (GCPHE)** is designed to provide an overview of historical and contemporary issues in higher education for doctoral students who wish to gain a greater understanding of higher education research, policy, assessment, and/or administrative practices. Current Washington University doctoral students who are interested in pursuing the Graduate Certificate in Higher Education may begin taking courses pursuant to the certificate upon entry into the university.

Contact: Alyssa McDonald  
Phone: 314-935-6791  
Email: [alyssa.mcdonald@wustl.edu](mailto:alyssa.mcdonald@wustl.edu)  
Website: <http://education.wustl.edu>

## Faculty

### Chair

**Andrew Butler** (<https://education.wustl.edu/people/andrew-c-butler/>)

Associate Professor of Education  
PhD, Washington University in St. Louis

### Endowed Professor

**Carol Camp Yeakey** (<https://education.wustl.edu/people/carol-camp-yeakey/>)

Marshall S. Snow Professor of Arts & Sciences  
PhD, Northwestern University

### Associate Professors

**Mary Ann Dzuback** (<https://education.wustl.edu/people/mary-ann-dzuback/>)

PhD, Columbia University

**Rowhea Elmesky** (<https://education.wustl.edu/people/rowhea-elmesky/>)

PhD, Florida State University

**Michelle Purdy** (<https://education.wustl.edu/people/michelle-purdy/>)

Director, Undergraduate Program in Educational Studies  
PhD, Emory University

### Assistant Professors

**Ebony Duncan-Shippy** (<https://education.wustl.edu/people/ebony-m-duncan-shippy/>)

PhD, Vanderbilt University

**Christopher Rozek**

PhD, University of Wisconsin, Madison

### Lecturers

**Lisa Gilbert**

PhD, Saint Louis University

**Aurora Kamimura**

PhD, University of Michigan, Ann Arbor

**Lyndsie Schultz** (<https://education.wustl.edu/people/lyndsie-schultz/>)

PhD, Washington University in St. Louis

### Affiliate Faculty

**John Baugh** (<https://education.wustl.edu/people/john-baugh/>)

Margaret Bush Wilson Professor in Arts & Sciences  
PhD, University of Pennsylvania

**Cindy Brantmeier** (<https://education.wustl.edu/people/cindy-brantmeier-1/>)

PhD, Indiana University, Bloomington

**William W. Clark** (<https://pacs.wustl.edu/people/william-w-clark-phd/>)

PhD, University of Michigan

**Sarah C.R. Elgin** (<https://education.wustl.edu/people/sarah-elgin/>)

Victor Hamburger Professor Emerita in Arts & Sciences  
PhD, California Institute of Technology

**Patrick C. Gibbons** (<https://education.wustl.edu/people/patrick-c-gibbons/>)

PhD, Harvard University

**Allison King** (<https://www.ot.wustl.edu/about/our-people/allison-king-48/>)

MD, University of Missouri School of Medicine, Columbia

**Mark A. McDaniel** (<https://education.wustl.edu/people/mark-mcdaniel/>)

PhD, University of Colorado

**Mike Strube** (<https://education.wustl.edu/people/michael-strube/>)

PhD, University of Utah

**Rebecca Treiman** (<https://education.wustl.edu/people/rebecca-treiman/>)

Burke & Elizabeth High Baker Professor of Child Development in Arts & Sciences  
PhD, University of Pennsylvania

**James V. Wertsch** (<https://education.wustl.edu/people/james-wertsch/>)

David R. Francis Distinguished Professor  
PhD, University of Chicago

### Staff

**Michele Augustin** (<https://education.wustl.edu/people/michele-augustin/>)

Director, Teacher Education and Academic Services  
EdD, EdS, Missouri Baptist University

**Jessica Bockskopf**

Field Placement Specialist  
EdD, Maryville University

**Mark Hogrebe**

Educational Research, Statistician  
PhD, University of Georgia

**Judith H. Joerding**

Kappa Delta Pi Advisor  
EdD, Saint Louis University

**Alyssa McDonald**

Student Services Coordinator  
MEd, Middle Tennessee State University

**Kyle Trojahn** (<https://education.wustl.edu/people/kyle-trojahn/>)

Administrative Coordinator, Faculty Support  
BS, Truman State University

## Degree Requirements

### Master of Arts in Education

The Master of Arts in Education (MAEd) program for students seeking elementary teacher certification requires 48 credit units of professional education courses, which includes 8 credit units of student teaching during the final semester. The courses are typically completed in three semesters and one summer course.

- The first fall semester consists of foundation courses in education, including educational psychology and teaching reading courses.
- Spring includes the curriculum and instruction block, which involves courses in the basic subject areas as well as a field seminar requiring 50 hours of classroom experience.
- Summer consists of a course in the education and psychology of exceptional children.
- The second fall semester, which is the final semester of the program, includes 12 weeks of student teaching as well as courses for reading and creating a teaching portfolio.

After students successfully complete the program and the state-mandated certification assessments, they are eligible for initial teacher certification in Missouri for elementary education grades 1 through 6.

### Master of Arts in Teaching

The Master of Arts in Teaching program for students seeking secondary teacher certification requires at least 36 units of professional education courses in addition to 12 graduate credit units in their teaching subject area during semesters when their schedules allow. The courses are typically completed in four semesters.

- The first fall semester includes professional education courses in adolescent development and a foundations of education course, along with appropriate courses in the content area.
- The second semester includes educational psychology courses, with 30 clock-hours of classroom experience and appropriate content area courses.
- The third semester includes a field experience seminar requiring 50 clock-hours of classroom experience, one or two curriculum and instruction course(s) for the content area, a reading intervention course, and a content area course, if necessary.

- The final (fourth) semester consists of 12 to 14 weeks of student teaching (8 credit units) as well as courses for reading in the content area and a teaching-learning process course.

After students successfully complete the program and the state-mandated certification assessments, they are eligible for initial teacher certification in Missouri for their selected subject area.

Students may be certified in the following content areas:

- *For grades 5 through 9:* Language Arts, Mathematics, Science, or Social Science
- *For grades 9 through 12:* Biology, Chemistry, Earth Science, English, Physics, Mathematics, Social Science (e.g., history, political science, psychology, anthropology)
- *For grades K through 12:* Art, Dance, Foreign Language (Latin, Chinese, French, German, Japanese, Russian, Spanish). Students must fulfill specific content area requirements through either undergraduate course work and/or the 12 credit units of subject area graduate courses required for the Master of Arts in Teaching program. It is strongly suggested that students apply for a subject in which they have completed (or will complete) a bachelor's degree (or earned the credits equivalent to an undergraduate major).

### Doctor of Philosophy in Education

Our doctoral program focuses on two main concentrations of study: Educational Policy Studies and Educational Psychology. Students work closely with their mentor(s) to develop expertise in their area of interest, and this research training is supplemented by required course work in methodology and the history of education. Additional course work may be undertaken as needed. Required and elective courses provide students with a broad understanding of scholarship and research in education. Many courses have fieldwork and research components, and they are designed to prepare students for meeting the qualifying examination requirements and for dissertation research and writing. By the third year, students should be completing their courses and submitting a qualifying portfolio of written work before entering the dissertation phase of the program. Students must have a dissertation proposal approved, generally by the fourth year, before they continue with the bulk of their research and writing for the dissertation. A dissertation is then completed and defended, usually between the fifth and seventh year of study. Integrating teaching and research with scholarly development involves the doctoral candidate in the central responsibilities of the professional educator. An advantage of a small department within Arts & Sciences is that students have multiple opportunities to work closely with many of the faculty in the department. In addition, the university offers a climate that supports interdisciplinary conversations across schools, departments and programs. As Department of Education faculty, we encourage students to pursue learning experiences and

contacts with faculty in other programs. Students encounter a diversity of disciplinary perspectives within and outside of the Department of Education so that they may acquire a broad understanding of the field.

## Graduate Certificate in Higher Education

Doctoral students interested in pursuing a Graduate Certificate in Higher Education must take a total of either four courses (12 total credit units) or three courses (9 total credit units) and engage in a (3-credit-unit) Mentored Experience in Higher Education (MEHE) through the Department of Education. Students will complete only one course from each of the following course groupings until their 9- or 12-credit-unit requirement has been met: (1) Foundations of Education, Assessment, and Evaluation; (2) Diversity and Inclusion in Education; and (3) Critical Issues in Higher Education. Students may elect to take a further course in Critical Issues in Higher Education or to enroll in an MEHE. After the student consults with the practicum supervisor, the MEHE will be approved by the director of graduate studies in the Department of Education. Each student must also complete a 10- to 15-page capstone paper that reflects upon and synthesizes what they have learned through their course work related to higher education issues, policies, and practices and their MEHE, if applicable. For students involved in writing original dissertation work relevant to the work in the certificate program, a chapter of their dissertation may be substituted for the capstone paper. The capstone paper will be presented to and reviewed by a panel of faculty teaching in the program and higher-education practitioners before the awarding of the graduate certificate.

## McKelvey School of Engineering

McKelvey School of Engineering is ranked among the top 50 engineering schools in *U.S. News & World Report*, and it focuses its intellectual efforts through a new convergence paradigm, particularly as applied to medicine and health (<http://bulletin.wustl.edu/medicine/>), energy and environment, entrepreneurship (<http://engineering.wustl.edu/our-school/initiatives/Pages/entrepreneurship.aspx>) and security.

For further information about PhD programs in engineering, please visit the following pages:

- Biomedical Engineering (p. 71)
- Computational & Data Sciences (p. 74)
- Computer Science & Engineering (p. 77)
- Electrical & Systems Engineering (p. 80)

- Energy, Environmental & Chemical Engineering (p. 83)
- Imaging Science (p. 86)
- Materials Science & Engineering (p. 92)
- Mechanical Engineering & Materials Science (p. 95)

## Biomedical Engineering

Biomedical engineering (BME) seeks to advance and integrate life science knowledge with engineering methods and innovations that contribute to improvements in human health and well-being. Our vision is that lasting knowledge of biomedical systems and paradigm-shifting engineering technology will arise from integrating engineering concepts and basic science knowledge from the molecular level to the whole-body level. We believe that those taught to work across multiple disciplines and to integrate modeling and experimental systems approaches will be uniquely positioned to advance and generate new disciplines in biomedical engineering.

With this vision in mind, we are committed to educating the next generation of biomedical engineers. We have leveraged our interdisciplinary strengths in engineering and clinical and life sciences to build a biomedical engineering department around research programs of excellence and translational potential: Biomedical & Biological Imaging; Cardiovascular Engineering; Cellular & Molecular Bioengineering; Neural Engineering; Orthopedic Engineering; Regenerative Engineering in Medicine; and Women's Health Technologies. These areas provide exciting opportunities for students with a variety of backgrounds and interests.

Students seeking the **PhD in Biomedical Engineering** may choose to study in one of seven multidisciplinary research programs that represent frontiers in biomedical engineering. Our core faculty work collaboratively with more than 90 affiliated faculty to offer students the opportunity to learn in a diverse and rich spectrum of BME research areas. Students graduating with the PhD in Biomedical Engineering are prepared to pursue paths in research and development in academic and industry settings, and they are also ready to contribute to teaching and research translation. The **MD/PhD in Biomedical Engineering**, which is offered jointly with the top-ranked School of Medicine, gives students in-depth training in modern biomedical research and clinical medicine. The typical MD/PhD career combines patient care and biomedical research but leans toward research.

Contact:	Kim Simpson
Phone:	314-935-5830
Email:	<a href="mailto:kim.simpson@wustl.edu">kim.simpson@wustl.edu</a>
Website:	<a href="http://bme.wustl.edu/graduate">http://bme.wustl.edu/graduate</a>



## Faculty

### Chair

**Lori A. Setton** (<https://engineering.wustl.edu/Profiles/Pages/Lori-Setton.aspx>)

Lucy and Stanley Lopata Distinguished Professor of Biomedical Engineering

PhD, Columbia University

Biomaterials for local drug delivery; tissue regenerations specific to the knee joints and spine

### Endowed Professors

**Rohit V. Pappu** (<https://engineering.wustl.edu/faculty/Rohit-Pappu.html>)

Edwin H. Murty Professor of Engineering

PhD, Tufts University

Macromolecular self assembly and function; computational biophysics

**Yoram Rudy** (<https://engineering.wustl.edu/faculty/Yoram-Rudy.html>)

Fred Saigh Distinguished Professor of Engineering

PhD, Case Western Reserve University

Cardiac electrophysiology; modeling of the cardiac system

### Professors

**Jianmin Cui** (<https://engineering.wustl.edu/faculty/Jianmin-Cui.html>)

PhD, State University of New York–Stony Brook

Ion channels; channel structure-function relationship; biophysics

**Daniel Moran** (<https://engineering.wustl.edu/faculty/Daniel-Moran.html>)

PhD, Arizona State University

Motor control; neural engineering; neuroprosthetics; movement biomechanics

**Baranidharan Raman** (<https://engineering.wustl.edu/faculty/Barani-Raman.html>)

PhD, Texas A&M University

Computational and systems neuroscience; neuromorphic engineering; pattern recognition; sensor-based machine olfaction

**Quing Zhu** (<https://engineering.wustl.edu/faculty/Quing-Zhu.html>)

PhD, University of Pennsylvania

Biophotonics and multimodality ultrasound and optical imaging

### Associate Professors

**Dennis L. Barbour** (<https://engineering.wustl.edu/faculty/Dennis-Barbour.html>)

MD, PhD, Johns Hopkins University

Application of novel machine learning tools to diagnose and treat disorders of perception and cognition

**Hong Chen** (<https://engineering.wustl.edu/faculty/Hong-Chen.html>)

PhD, University of Washington

Physical acoustics; therapeutic ultrasound and ultrasound imaging

**Song Hu** (<https://engineering.wustl.edu/faculty/Song-Hu.html>)

PhD, Washington University in St. Louis

Optical and photoacoustic technologies for high-resolution structural, functional, metabolic and molecular imaging in vivo

**Princess Imoukhuede** (<https://engineering.wustl.edu/faculty/Princess-Imoukhuede.html>)

PhD, California Institute of Technology

Ligand-receptor signal transduction; angiogenesis; computational systems bioengineering

**Jin-Yu Shao** (<https://engineering.wustl.edu/faculty/Jin-Yu-Shao.html>)

PhD, Duke University

Cell mechanics; receptor and ligand interactions; molecular biomechanics

**Jon Silva** (<https://engineering.wustl.edu/faculty/Jonathan-Silva.html>)

PhD, Washington University

Ion channel biophysics

**Kurt A. Thoroughman** (<https://engineering.wustl.edu/faculty/Kurt-Thoroughman.html>)

PhD, Johns Hopkins University

Human motor control and motor learning; neural computation

**Chao Zhou**

PhD, University of Pennsylvania

Optical coherence tomography

### Assistant Professors

**Nate Huebsch** (<https://engineering.wustl.edu/faculty/Nathaniel-Huebsch.html>)

PhD, Harvard University

Cell-material Interactions, iPSC-based tissue modeling to study cardiac development and disease

**Abhinav Kumar Jha** (<https://engineering.wustl.edu/faculty/Abhinav-Jha.html>)

PhD, University of Arizona

Development of computational-imaging solutions for diagnosing and treating diseases

**Jai S. Rudra** (<https://engineering.wustl.edu/faculty/Jai-Rudra.html>)

PhD, Louisiana Tech University

Peptide-based biomaterials; immunoengineering; immunology of nanoscale aggregates; development of vaccines and immunotherapies

**Alexandra Rutz** (<https://engineering.wustl.edu/faculty/Alexandra-Rutz.html>)

PhD, Northwestern University  
Engineering of electronic tissues using materials design and fabrication-based approaches

**Ismael Seáñez** (<https://engineering.wustl.edu/faculty/Ismael-Seanez.html>)

PhD, California Institute of Technology  
Neuro-rehabilitation tools and programs that promote active use of residual mobility and maximize recovery through the use of body-machine interfaces

**Michael D. Vahey** (<https://engineering.wustl.edu/faculty/Michael-Vahey.html>)

PhD, Massachusetts Institute of Technology  
Biophysical mechanisms of infectious disease; fluorescence microscopy; microfluidics

## Principal Lecturer

**Patricia Widder** (<https://engineering.wustl.edu/faculty/Patricia-Widder.html>)

MS, Washington University

## Lecturer

**Katherine Schreiber**

PhD, Saint Louis University

## Senior Professor

**Larry Taber**

PhD, Stanford University  
Mechanics of growth and development; cardiac mechanics

## Senior Emeritus Professor

**Frank Yin**

MD, PhD, University of California, San Diego

## Degree Requirements

### PhD and Combined MD/PhD in Biomedical Engineering

The department offers programs that lead to the Doctor of Philosophy (PhD) in Biomedical Engineering as well as combined MD/PhD degrees. The latter degrees are conferred jointly with the School of Medicine.

The doctoral degree requires a minimum of 72 credits beyond the bachelor's level, with a minimum of 36 being course credits (including the core curriculum) and a minimum of 24 credits of doctoral dissertation research.

The core curriculum that must be satisfied by all PhD students consists of the following:

- One graduate-level course in life science from an approved list
- One graduate-level course in mathematics from an approved list
- One graduate-level course in computer science from an approved list or exemption by proficiency
- Four BME courses from an approved list

Please visit the Biomedical Engineering (BME) website (<https://bme.wustl.edu/graduate/phd/Pages/default.aspx>) for a comprehensive list of the approved courses.

Up to 9 credits of BME 601C Research Rotation and/or BME 501C Graduate Seminar may be counted toward the 36 credits of graduate courses required for the PhD, so a total of 27 additional credits (usually nine courses, including the core curriculum) are required for the PhD. Up to two 400-level courses may be counted toward the nine courses required for the PhD. Graduate courses may be transferred in (up to 24 credits) but must be evaluated and approved by the Director of Doctoral Studies. The evaluation and approval may occur at any time, but course transfer does not become official until after one year in residence at Washington University.

Students seeking the **PhD in Biomedical Engineering** enroll in two to three courses each semester and participate in one or two laboratory rotations during the first year. Before the end of their first 10 months of enrollment in the program, students take their oral qualifying exam, which consists of a presentation of their research done to date in the mentor's laboratory followed by an oral exam addressing any issues directly related to their rotation report or their oral presentation. Upon successfully passing the qualifying examination, they advance to candidacy and complete the balance of their requirements. During the second and third years, students complete their remaining courses, participate in one semester of a mentored teaching experience, and begin their thesis research. By the end of the third year, students must complete their thesis proposal. Students must also complete one accepted and one submitted first-author publication and complete a dissertation.

Students pursuing the combined **MD/PhD in Biomedical Engineering** must complete the degree requirements in both schools. MD/PhD students typically complete the first two years of the medical school preclinical curriculum while also performing one or more research rotations, then the remaining requirements for the doctoral degree, and finally the clinical training years of the medical degree. The department generally gives graduate course credits for some of the medical school courses toward the fulfillment of course requirements for the PhD degree. This is arranged on an individual basis between the student, their academic adviser and the Director of Doctoral Studies.

## Computational & Data Sciences

The Division of Computational & Data Sciences (DCDS) at Washington University in St. Louis trains students interested in problems from across a range of disciplines that share a common reliance on data and computing.

The introduction of now-standard tools from statistical analysis and hypothesis testing transformed the practice of natural and social science in the mid-20th century. Emerging tools from computational and data science have the potential to bring about an even larger transformation of scientific practice, especially in the social sciences. The questions raised by data generated by and about human behavior are engaging and profound. However, many if not most of these questions can only be tackled using a multidisciplinary approach that combines a deep knowledge of the capabilities and operation of data science techniques with the domain expertise needed to apply them effectively to the problems under consideration.

Doctoral students in Computational & Data Sciences receive strong methodological training in modern computational and statistical methods, and they also acquire expertise in a particular social science application area.

The program is inherently interdisciplinary and brings together leading experts from across the university who are using data to solve some of the greatest challenges that our world faces today. Faculty include both data and computing experts as well as domain experts from different application areas.

### Faculty

**Deanna Barch** (<https://psych.wustl.edu/people/deanna-barch/>)

Professor and Chair, Psychological & Brain Sciences  
PhD, University of Illinois

**Michael Bechtel** (<https://artsci.wustl.edu/faculty-staff/michael-m-bechtel/>)

Associate Professor, Political Science  
PhD, University of Konstanz

**Ryan Bogdan** (<https://psych.wustl.edu/people/ryan-bogdan/>)

Associate Professor, Psychological & Brain Sciences  
PhD, Harvard University

**Todd Braver** (<https://psych.wustl.edu/people/todd-braver/>)

Professor, Psychological & Brain Sciences, Radiology, and Neuroscience  
PhD, Carnegie Mellon University

**Derek Brown** (<https://brownschool.wustl.edu/Faculty-and-Research/Pages/Derek-Brown.aspx>)

Associate Professor, Brown School  
PhD, Duke University

**Brett Drake** (<https://brownschool.wustl.edu/Faculty-and-Research/Pages/Brett-Drake.aspx>)

Professor, Brown School  
PhD, UCLA

**Christine Ekenga** (<https://brownschool.wustl.edu/Faculty-and-Research/Pages/Christine-Ekenga.aspx>)

Assistant Professor, Brown School  
PhD, New York University

**Patrick Fowler** (<https://brownschool.wustl.edu/Faculty-and-Research/Pages/Patrick-Fowler.aspx>)

Track Chair, Social Work & Public Health  
Associate Professor, Brown School  
PhD, Wayne State University

**Roman Garnett** (<https://engineering.wustl.edu/faculty/Roman-Garnett.html>)

Assistant Professor, Computer Science & Engineering  
PhD, University of Oxford

**Chris Gill** (<https://engineering.wustl.edu/faculty/Christopher-Gill.html>)

Professor, Computer Science & Engineering  
DSc, Washington University in St. Louis

**Roch Guérin** (<https://engineering.wustl.edu/faculty/Roch-Guerin.html>)

Professor and Chair, Computer Science & Engineering  
PhD, California Institute of Technology

**Shenyang Guo** (<https://brownschool.wustl.edu/Faculty-and-Research/Pages/Shenyang-Guo.aspx>)

Professor, Brown School  
PhD, University of Michigan - Ann Arbor

**Ross Hammond** (<https://brownschool.wustl.edu/Faculty-and-Research/Pages/Ross-Hammond.aspx>)

Associate Professor, Brown School  
PhD, University of Michigan

**Jenine Harris** (<https://brownschool.wustl.edu/Faculty-and-Research/Pages/Jenine-Harris.aspx>)

Associate Professor, Brown School  
PhD, Saint Louis University

**CJ Ho** (<https://engineering.wustl.edu/faculty/Chien-Ju-Ho.html>)

Assistant Professor, Computer Science & Engineering  
PhD, University of California, Los Angeles

**Peter Hovmand**

Professor of Practice, Brown School  
PhD, Michigan State University

**Josh Jackson** (<https://psych.wustl.edu/people/joshua-jackson/>)

Associate Professor, Psychological & Brain Sciences  
PhD, University of Illinois, Urbana-Champaign

**Kim Johnson (<https://brownschool.wustl.edu/Faculty-and-Research/Pages/Kimberly-Johnson.aspx>)**

Associate Professor, Brown School  
PhD, University of Minnesota

**Melissa Jonson-Reid (<https://brownschool.wustl.edu/Faculty-and-Research/Pages/Melissa-Jonson-Reid.aspx>)**

Professor, Brown School  
PhD, University of California, Berkeley

**Brendan Juba (<https://engineering.wustl.edu/faculty/Brendan-Juba.html>)**

Assistant Professor, Computer Science & Engineering  
PhD, Massachusetts Institute of Technology

**Caitlin Kelleher (<https://engineering.wustl.edu/Profiles/Pages/Caitlin-Kelleher.aspx>)**

Associate Professor, Computer Science & Engineering  
PhD, Carnegie Mellon University

**Matt Kreuter (<https://brownschool.wustl.edu/Faculty-and-Research/Pages/Matthew-Kreuter.aspx>)**

Professor, Social Work & Public Health  
PhD, University of North Carolina, Chapel Hill

**Calvin Lai (<https://psych.wustl.edu/people/calvin-lai/>)**

Assistant Professor, Psychological & Brain Sciences  
PhD, University of Virginia

**Christopher Lucas (<https://polisci.wustl.edu/people/christopher-lucas/>)**

Assistant Professor, Political Science  
PhD, Harvard University

**Doug Luke (<https://brownschool.wustl.edu/Faculty-and-Research/Pages/Douglas-Luke.aspx>)**

Professor, Brown School  
PhD, University of Illinois

**Andrew D. Martin (<https://polisci.wustl.edu/people/andrew-martin/>)**

Professor, Political Science and Law  
Chancellor, Washington University in St. Louis  
PhD, Washington University in St. Louis

**Timothy McBride (<https://brownschool.wustl.edu/Faculty-and-Research/Pages/Timothy-McBride.aspx>)**

Professor, Brown School  
PhD, University of Wisconsin - Madison

**Jacob Montgomery (<https://polisci.wustl.edu/people/jacob-montgomery/>)**

Track Chair, Political Science  
Associate Professor, Political Science  
PhD, Duke University

**Alvitta Ottley (<https://engineering.wustl.edu/faculty/Alvitta-Ottley.html>)**

Assistant Professor, Computer Science & Engineering  
PhD, Tufts University

**Andrew Reeves (<http://www.andrewreeves.org/>)**

Associate Professor, Political Science  
PhD, Harvard University

**Guillermo Rosas (<https://polisci.wustl.edu/people/guillermo-rosas/>)**

Associate Professor, Political Science  
PhD, Duke University

**Deborah Salvo (<https://brownschool.wustl.edu/Faculty-and-Research/Pages/Deborah-Salvo.aspx>)**

Assistant Professor, Brown School  
PhD, Emory University

**Betsy Sinclair (<https://polisci.wustl.edu/people/betsy-sinclair/>)**

Professor, Political Science  
PhD, California Institute of Technology

**Joe Steensma (<https://brownschool.wustl.edu/Faculty-and-Research/Pages/Joseph-Steensma.aspx>)**

Professor of Practice, Brown School  
EdD, Indiana Wesleyan University

**Yevgeniy Vorobeychik (<https://engineering.wustl.edu/faculty/Yevgeniy-Vorobeychik.html>)**

Associate Professor  
Computer Science & Engineering  
PhD, University of Michigan

**William Yeoh (<https://engineering.wustl.edu/faculty/William-Yeoh.html>)**

Assistant Professor  
Computer Science & Engineering  
PhD, University of Southern California

**Jeffrey Zacks (<https://psych.wustl.edu/people/jeffrey-zacks/>)**

Track Chair, Psychological & Brain Sciences  
Professor and Associate Chair, Psychological & Brain Sciences  
PhD, Stanford University

## Degree Requirements

### PhD in Computational & Data Sciences

Upon joining the PhD program, each student is assigned an initial adviser from the DCDS faculty. This adviser meets with the student to assess their background and to advise them on course selection. Immediately prior to each fall semester, DCDS faculty conduct a “boot camp” in mathematics, statistics and programming to help bring incoming students up to the level needed to succeed in the initial course work and the program.

All students complete a common core curriculum as well as a domain depth requirement in a social science area. The focus of the first year is on acquiring a common set of tools and an understanding of the ranges and types of problems students may work on as they progress through the program. The entire

incoming cohort takes a unique two-semester seminar sequence solely for DCDS students, which includes both general topics and a series of data-driven dives into the types of research questions that may be encountered in each of the domain areas.

In addition, students will be exposed to research in different areas through “rotations” that start in November of their first year. By the end of the summer following their first year, each student will put together an advisory committee of at least two DCDS faculty members (preferably from different tracks) and identify the specific track in which they plan to do research and pursue their degree.

## Curriculum

### Required Core Courses (24 credit units)

- **E81 CSE 502: Data Structures and Algorithms (3 credits):** This is an existing fundamental course in algorithms and data structures, including significant implementation in an object-oriented programming language (currently Java). We expect that many students will already have this background; the course is intended as a pathway for students with very little computational training.
- **Quantitative Methods I and II (6 credits):** This two-semester sequence covers essential probability and statistics, including hypothesis testing, inference and experimental methodology using a modern statistical computing language like R. The introductory courses offered by the departments of Psychological & Brain Sciences (Psych 5066) and Political Science (Pol Sci 581) will be cross-listed and count for Quantitative Methods I credit. Quantitative Methods II is a course that includes maximum-likelihood methods, Bayesian and nonparametric models, generalized linear models and sampling techniques. The course is currently taught as Pol Sci 582 and will be cross-listed across participating departments.
- **DCDS 510: Data Wrangling (3 credits):** We are in a new era in terms of the volume and modalities of data generated by efforts to measure human behavior. This will be a new cross-listed course that introduces students to the tools and techniques used to collect, maintain and process large-scale data sets of the kind generated in the course of studying people and social systems.
- **CSE 417T and CSE 517A: Machine Learning I and II (6 credits):** This is a two-semester sequence in machine learning. Together, the two courses cover the fundamental principles of supervised learning, including generalization, overfitting, regularization, cross-validation, model selection, and core machine learning techniques and algorithms, including linear models like logistic regression, gradient descent, tree-based and ensemble methods, kernel methods, deep neural networks and topics in unsupervised learning.

- **Computational and Data Sciences Seminar Series (6 credits):** This two-semester seminar sequence is cross-listed across participating departments and team-taught by participating faculty.
  - DCDS 499: Introduction to Graduate Research in Computational & Data Sciences will be structured around topics and ideas that do not need detailed specific-content background. The topics covered will include ethics, the nature of research, robustness and reproducibility of research, and presentations from across the different areas of interest to give students an understanding of research in human and social data analytics across the university.
  - DCDS 500: Computational and Data Sciences Research Exploration will be structured as a series of deep dives into data-driven approaches in each of the domain areas, including a module on computational methodologies. In each of these modules, the students will either be given a specific data set to investigate or a specific hands-on task to complete (e.g., developing a visualization, assessing how easy a computational tool is for social scientists to use). Students will work in teams on these projects.

### Domain Depth Tracks

Students will choose one of four focus tracks: Political Science, Psychological & Brain Sciences, Social Work & Public Health, or Computational Methodologies. Depending on the track, students must complete the following domain depth requirements:

1. **Political Science track:** Students must complete three substantive classes in one subfield (e.g., American politics, comparative politics, international relations) from a specified list for each subfield as well as a research design course (Pol Sci 540).
2. **Psychological & Brain Sciences track:** Students must complete three substantive classes in one subfield (e.g., brain, behavior and cognition, clinical science, social/personality, development and aging). With permission, students may substitute the Psychological & Brain Sciences Research Methods Course (Psych 5011) for one of the substantive classes, depending on their background in psychological science.
3. **Social Work & Public Health track:** Students must complete a three-course core doctoral seminar series, including conceptual foundations of social science, advanced research methods, and a theory seminar, either in public health or social work. Students will also be required to take an advanced substantive course from an approved list in their area of interest.
4. **Computational Methodologies track:** Students must take CSE 541T Advanced Algorithms and either CSE 511A Introduction to Artificial Intelligence or CSE 515T Bayesian Methods in Machine Learning. In addition, students must

take two substantive classes in their area of interest (i.e., political science, psychological & brain sciences, or social work & public health) from among the classes acceptable for students in that track as noted above.

## Sample Curriculum

A typical progression of classes is described below, with separate examples for students who enter with and without more extensive computational backgrounds.

### Students Without Much Computer Science Background

Course	Fall Units	Spring Units
First Year		
Data Structures and Algorithms (CSE 502N)	3	—
Quantitative Methods I	3	—
CDS Seminar I	3	—
Introduction to Machine Learning (CSE 417T)	—	3
Data Wrangling	—	3
CDS Seminar II	—	3
	<b>9</b>	<b>9</b>
Second Year		
Quantitative Methods II	3	—
Domain course	3	3
Domain course or elective	3	3
Machine Learning (CSE 517A)	—	3
	<b>9</b>	<b>9</b>

### Students With More Computer Science Background

Course	Fall Units	Spring Units
First Year		
Introduction to Machine Learning (CSE 417T) or domain course	3	—
Quantitative Methods I	3	—
CDS Seminar I	3	—
Introduction to Machine Learning (CSE 417T) or domain course	—	3
Data Wrangling	—	3
CDS Seminar II	—	3
	<b>9</b>	<b>9</b>
Second Year		
Quantitative Methods II	3	—

Domain course	3	3
Domain course or elective	3	3
Machine Learning (CSE 517A)	—	3
	<b>9</b>	<b>9</b>

## Further Requirements

Additional requirements for this program are as follows:

- A minimum of 72 credit units beyond the bachelor's level, with a minimum of 37 being course credits (including the core curriculum)
- A minimum of 24 credit units of doctoral dissertation research
- Students must maintain a cumulative average grade of B (3.0 grade-point average) for all 72 credit units.
- Required courses must be completed with no more than one grade below a B-.
- Up to 24 graduate credit units may be transferred with the approval of the Graduate Studies Committee, which is chaired by the director of graduate studies.

In addition to fulfilling the course and research credit requirements, students must do the following:

- Complete at least two three-month-long research rotations.
- Pass a qualifying exam.
- Successfully defend a thesis proposal.
- Present and successfully defend a dissertation.
- Complete a teaching requirement consisting of two semesters of mentored teaching experience.

## Computer Science & Engineering

The Department of Computer Science & Engineering offers **PhD programs in Computer Science and in Computer Engineering**. Computer science research encompasses the fundamentals of software and algorithm design, machine learning and bioinformatics, visual and cyber-physical computing, and human-computer interaction. Computer engineering focuses on the interaction of software and hardware in the design of computing systems and networks. Our research groups have extensive interdisciplinary ties across the university, with collaborations in medicine, science, the humanities and social work. Recent graduates have accepted research and teaching faculty positions as well as research and engineering positions in leading technology companies.

Both PhD programs require a combination of courses, research and teaching. The required courses are often completed early in the program, since students are integrated into research groups during their first year and the program's emphasis is on creative research. The program has milestones that involve both written and oral components, and these provide structure for the

five- to six-year degree. The program considers applicants with either bachelor's or master's degrees and has had successful applicants in the past whose backgrounds were outside of the field of computer science.

Phone: 314-935-6132  
Email: [admissions@cse.wustl.edu](mailto:admissions@cse.wustl.edu)  
Website: <https://cse.wustl.edu/graduate/programs>

## Faculty

### Chair

#### **Roch Guérin (<https://engineering.wustl.edu/faculty/Roch-Guerin.html>)**

Harold B. and Adelaide G. Welge Professor of Computer Science

PhD, California Institute of Technology

Computer networks and communication systems

### Professors

#### **Sanjoy Baruah (<https://engineering.wustl.edu/faculty/Sanjoy-Baruah.html>)**

PhD, University of Texas at Austin

Real-time and safety-critical system design, cyber-physical systems, scheduling theory, resource allocation and sharing in distributed computing environments

#### **Aaron Bobick (<https://engineering.wustl.edu/faculty/Aaron-Bobick.html>)**

James M. McKelvey Professor and Dean

PhD, Massachusetts Institute of Technology

Computer vision, graphics, human-robot collaboration

#### **Michael R. Brent (<https://engineering.wustl.edu/faculty/Michael-Brent.html>)**

Henry Edwin Sever Professor of Engineering

PhD, Massachusetts Institute of Technology

Systems biology, computational and experimental genomics, mathematical modeling, algorithms for computational biology, bioinformatics

#### **Jeremy Buhler (<https://engineering.wustl.edu/faculty/Jeremy-Buhler.html>)**

PhD, Washington University

Computational biology, genomics, algorithms for comparing and annotating large biosequences

#### **Roger D. Chamberlain (<https://engineering.wustl.edu/faculty/Roger-Chamberlain.html>)**

DSc, Washington University

Computer engineering, parallel computation, computer architecture, multiprocessor systems

#### **Yixin Chen (<https://engineering.wustl.edu/faculty/Yixin-Chen.html>)**

PhD, University of Illinois at Urbana-Champaign

Mathematical optimization, artificial intelligence, planning and scheduling, data mining, learning data warehousing, operations research, data security

#### **Patrick Crowley (<https://engineering.wustl.edu/faculty/Patrick-Crowley.html>)**

PhD, University of Washington

Computer and network systems, network security

#### **Ron K. Cytron (<https://engineering.wustl.edu/faculty/Ron-Cytron.html>)**

PhD, University of Illinois at Urbana-Champaign

Programming languages, middleware, real-time systems

#### **Christopher D. Gill (<https://engineering.wustl.edu/faculty/Christopher-Gill.html>)**

DSc, Washington University

Parallel and distributed real-time embedded systems, cyber-physical systems, concurrency platforms and middleware, formal models and analysis of concurrency and timing

#### **Raj Jain (<https://engineering.wustl.edu/faculty/Raj-Jain.html>)**

Barbara J. & Jerome R. Cox Jr. Professor of Computer Science

PhD, Harvard University

Network security, blockchains, medical systems security, industrial systems security, wireless networks, unmanned aircraft systems, internet of things, telecommunications networks, traffic management

#### **Tao Ju (<https://engineering.wustl.edu/faculty/Tao-Ju.html>)**

PhD, Rice University

Computer graphics, visualization, mesh processing, medical imaging and modeling

#### **Chenyang Lu (<https://engineering.wustl.edu/faculty/Chenyang-Lu.html>)**

Fullgraf Professor in the Department of Computer Science & Engineering

PhD, University of Virginia

Internet of things, real-time, embedded, and cyber-physical systems, cloud and edge computing, wireless sensor networks

#### **Neal Patwari (<https://engineering.wustl.edu/faculty/Neal-Patwari.html>)**

PhD, University of Michigan

Application of statistical signal processing to wireless networks, and radio frequency signals

#### **Weixiong Zhang**

PhD, University of California, Los Angeles

Computational biology, genomics, machine learning and data mining, and combinatorial optimization

## Associate Professors

**Kunal Agrawal (<https://engineering.wustl.edu/faculty/Kunal-Agrawal.html>)**

PhD, Massachusetts Institute of Technology  
Parallel computing, cyber-physical systems and sensing,  
theoretical computer science

**Roman Garnett (<https://engineering.wustl.edu/faculty/Roman-Garnett.html>)**

PhD, University of Oxford  
Active learning (especially with atypical objectives), Bayesian  
optimization, and Bayesian nonparametric analysis

**Brendan Juba (<https://engineering.wustl.edu/faculty/Brendan-Juba.html>)**

PhD, Massachusetts Institute of Technology  
Theoretical approaches to artificial intelligence founded on  
computational complexity theory and theoretical computer  
science more broadly construed

**Caitlin Kelleher (<https://engineering.wustl.edu/faculty/Caitlin-Kelleher.html>)**

Hugo F. & Ina Champ Urbauer Career Development Associate  
Professor  
PhD, Carnegie Mellon University  
Human-computer interaction, programming environments, and  
learning environments

**I-Ting Angelina Lee**

PhD, Massachusetts Institute of Technology  
Designing linguistics for parallel programming, developing  
runtime system support for multi-threaded software, and building  
novel mechanisms in operating systems and hardware to  
efficiently support parallel abstractions

**William D. Richard (<https://engineering.wustl.edu/faculty/William-Richard.html>)**

PhD, University of Missouri-Rolla  
Ultrasonic imaging, medical instrumentation, computer  
engineering

**Yevgeniy Vorobeychik (<https://engineering.wustl.edu/faculty/Yevgeniy-Vorobeychik.html>)**

PhD, University of Michigan  
Artificial intelligence, machine learning, computational  
economics, security and privacy, multi-agent systems

**William Yeoh (<https://engineering.wustl.edu/faculty/William-Yeoh.html>)**

PhD, University of Southern California  
Artificial intelligence, multi-agent systems, distributed constraint  
optimization, planning and scheduling

## Assistant Professors

**Ayan Chakrabarti (<https://engineering.wustl.edu/faculty/Ayan-Chakrabarti.html>)**

PhD, Harvard University  
Computer vision computational photography, machine learning

**Chien-Ju Ho (<https://engineering.wustl.edu/faculty/Chien-Ju-Ho.html>)**

PhD, University of California, Los Angeles  
Design and analysis of human-in-the-loop systems, with  
techniques from machine learning, algorithmic economics, and  
online behavioral social science

**Ulugbek Kamilov (<https://engineering.wustl.edu/faculty/Ulugbek-Kamilov.html>)**

PhD, École Polytechnique Fédérale de Lausanne, Switzerland  
Computational imaging, image and signal processing, machine  
learning and optimization

**Alvitta Ottley (<https://engineering.wustl.edu/faculty/Alvitta-Ottley.html>)**

PhD, Tufts University  
Designing personalized and adaptive visualization systems,  
including information visualization, human-computer interaction,  
visual analytics, individual differences, personality, user  
modeling and adaptive interfaces

**Netanel Raviv (<https://engineering.wustl.edu/faculty/Netanel-Raviv.html>)**

PhD, Technion, Haifa, Israel  
Mathematical tools for computation, privacy and machine  
learning

**Ning Zhang (<https://engineering.wustl.edu/faculty/Ning-Zhang.html>)**

PhD, Virginia Polytechnic Institute and State University  
System security, software security

## Teaching Professor

**Bill Siever**

PhD, Missouri University of Science and Technology  
Computer architecture, organization, and embedded systems

**Todd Sproull (<https://engineering.wustl.edu/faculty/Todd-Sproull.html>)**

PhD, Washington University  
Computer networking and mobile application development

## Professor of the Practice

**Dennis Cosgrove (<https://engineering.wustl.edu/faculty/Dennis-Cosgrove.html>)**

BS, University of Virginia  
Programming environments and parallel programming



## Senior Lecturers

### Steve Cole

PhD, Washington University in St. Louis  
Parallel computing, accelerating streaming applications on GPUs

### Marion Neumann (<https://engineering.wustl.edu/faculty/Marion-Neumann.html>)

PhD, University of Bonn, Germany  
Machine learning with graphs; solving problems in agriculture and robotics

### Jonathan Shidal (<https://engineering.wustl.edu/faculty/Jonathan-Shidal.html>)

PhD, Washington University  
Computer architecture and memory management

### Douglas Shook (<https://engineering.wustl.edu/faculty/Doug-Shook.html>)

MS, Washington University  
Imaging sensor design, compiler design and optimization

## Lecturers

### Hila Ben Abraham

PhD, Washington University in St. Louis  
Parallel computing, accelerating streaming applications on GPUs, computer and network security, and malware analysis

### Brian Garnett (<https://engineering.wustl.edu/faculty/Brian-Garnett.html>)

PhD, Rutgers University  
Discrete mathematics and probability, generally motivated by theoretical computer science

### James Orr (<https://engineering.wustl.edu/faculty/James-Orr.html>)

PhD, Washington University  
Real-time systems theory and implementation, cyber-physical systems, and operating systems

## Senior Professor

### Jonathan S. Turner

PhD, Northwestern University  
Design and analysis of internet routers and switching systems, networking and communications, algorithms

## Senior Faculty Emeritus

### Jerome R. Cox Jr.

ScD, Massachusetts Institute of Technology  
Computer system design, computer networking, biomedical computing

## Professors Emeriti

### Takayuki D. Kimura

PhD, University of Pennsylvania  
Communication and computation, visual programming

### Seymour V. Pollack

MS, Brooklyn Polytechnic Institute  
Intellectual property, information systems

## Degree Requirements

### PhD in Computer Science or Computer Engineering

Students can choose to pursue a PhD in Computer Science or a PhD in Computer Engineering. The requirements vary for each degree. Here are the core requirements:

- Complete 72 units of regular — including graded — courses (at least 33 units, of which 9 must fulfill breadth requirements), seminars (at least 3 units), and research credits (at least 24 units).
- Satisfy fundamental teaching requirements by participating in mentored teaching experiences and complete scholarly communication requirements by participating in the Doctoral Student Research Seminar.
- Pass milestones that demonstrate the ability to understand research literature, to communicate orally and in writing, and to formulate a detailed research plan. These milestones include an oral qualifying examination, a dissertation proposal defense, and a dissertation defense.

For more information, please refer to the Doctoral Program Guide available on the Computer Science & Engineering website (<https://cse.wustl.edu/graduate/programs/Pages/phd-programs.aspx>).

## Electrical & Systems Engineering

The Department of Electrical & Systems Engineering offers PhD degrees in Electrical Engineering and in Systems Science & Mathematics. Research activity in the department is focused in the following three areas:

- Applied mathematics, systems & control
- Electronics & optics
- Signal processing, imaging & communications

Students working in any of these areas will enjoy the benefits of programs that balance fundamental theoretical concepts with modern applications. In our department, students find ample opportunities for close interactions with faculty members working on cutting-edge research and technology development.

Prospective PhD students with previous degrees in engineering who are interested in PhD studies and research in mathematics or statistics are encouraged to apply for PhD studies in Mathematics and Statistics. For more details, visit the Graduate Programs in Mathematics and Statistics (<http://wumath.wustl.edu/graduate/>) webpage.

Phone: 314-935-7520  
Website: <http://ese.wustl.edu>

## Faculty

### Chair

**Bruno Sinopoli** (<https://engineering.wustl.edu/Profiles/Pages/Bruno-Sinopoli.aspx>)

Das Family Distinguished Professor  
PhD, University of California, Berkeley  
Cyberphysical systems, analysis and design of networked embedded control systems, with applications to sensor actuators networks

### Endowed Professors

**Shantanu Chakrabartty** (<https://engineering.wustl.edu/faculty/Shantanu-Chakrabartty.html>)

Clifford W. Murphy Professor  
PhD, Johns Hopkins University  
New frontiers in unconventional analog computing techniques using silicon and hybrid substrates, fundamental limits of energy efficiency, sensing and resolution by exploiting computational and adaptation primitives inherent in the physics of devices

**Arye Nehorai** (<https://engineering.wustl.edu/faculty/Arye-Nehorai.html>)

Eugene and Martha Lohman Professor of Electrical Engineering  
PhD, Stanford University  
Statistical signal processing, machine learning, imaging, biomedicine

**Joseph A. O'Sullivan** (<https://engineering.wustl.edu/faculty/Joseph-O'Sullivan.html>)

Samuel C. Sachs Professor of Electrical Engineering  
Dean, UMSL/WashU Joint Undergraduate Engineering Program  
PhD, Notre Dame University  
Information theory, statistical signal processing, imaging science with applications in medicine and security, and recognition theory and systems

**Lan Yang** (<https://engineering.wustl.edu/faculty/Lan-Yang.html>)

Edward H. & Florence G. Skinner Professor of Engineering  
PhD, California Institute of Technology  
Nano/micro photonics, ultra high-quality optical microcavities, ultra-low-threshold microlasers, nano/micro fabrication, optical sensing, single nanoparticle detection, photonic molecules, photonic materials

### Professors

**Jr-Shin Li** (<https://engineering.wustl.edu/faculty/Jr-Shin-Li.html>)

Professor  
PhD, Harvard University  
Mathematical control theory, optimization, quantum control, biomedical applications

**Neal Patwari** (<https://engineering.wustl.edu/faculty/Neal-Patwari.html>)

Professor  
PhD, University of Michigan  
Intersection of statistical signal processing and wireless networking for improving wireless sensor networking and radiofrequency sensing

### Associate Professors

**ShiNung Ching** (<https://engineering.wustl.edu/faculty/ShiNung-Ching.html>)

Das Family Distinguished Career Development Assistant Professor  
PhD, University of Michigan  
Systems and control in neural medicine, nonlinear and constrained control, physiologic network dynamics, stochastic control

**Jung-Tsung Shen** (<https://engineering.wustl.edu/faculty/Jung-Tsung-Shen.html>)

Das Family Distinguished Career Development Assistant Professor  
PhD, Massachusetts Institute of Technology  
Theoretical and numerical investigations on nanophotonics, optoelectronics, plasmonics, metamaterials

### Assistant Professors

**Ulugbek Kamilov** (<https://engineering.wustl.edu/faculty/Ulugbek-Kamilov.html>)

PhD, École Polytechnique Fédérale de Lausanne, Switzerland  
Computational imaging, signal processing, biomedical imaging

**Mark Lawrence**

PhD, University of Birmingham  
Nanophotonics, nonlinear optics, metasurfaces

**Matthew D. Lew** (<https://engineering.wustl.edu/faculty/Matthew-Lew.html>)

PhD, Stanford University  
Microscopy, biophotonics, computational imaging, nano-optics

**Chuan Wang** (<https://engineering.wustl.edu/faculty/Chuan-Wang.html>)

PhD, University of Southern California  
Flexible electronics, stretchable electronics, printed electronics, nanomaterials, nanoelectronics, optoelectronics

**Yong Wang (<https://engineering.wustl.edu/faculty/Yong-Wang.html>)**

PhD, Washington University in St. Louis  
Biomedical engineering, life science, human physiology,  
magnetic resonance imaging, electrocardiographic imaging

**Shen Zeng (<https://engineering.wustl.edu/faculty/Shen-Zeng.html>)**

PhD, University of Stuttgart  
Systems and control theory, data-based analysis and control  
of complex dynamical systems, inverse problems, biomedical  
applications

**Xuan "Silvia" Zhang (<https://engineering.wustl.edu/faculty/Xuan-Silvia-Zhang.html>)**

PhD, Cornell University  
Robotics, cyber-physical systems, hardware security, ubiquitous  
computing, embedded systems, computer architecture,  
VLSI, electronic design automation, control optimization, and  
biomedical devices and instrumentation

## Senior Professors

**Paul S. Min (<https://engineering.wustl.edu/faculty/Paul-Min.html>)**

PhD, University of Michigan  
Routing and control of telecommunication networks, fault  
tolerance and reliability, software systems, network management

**Robert E. Morley Jr. (<https://engineering.wustl.edu/faculty/Robert-Morley.html>)**

DSc, Washington University in St. Louis  
Computer engineering, lower-power VLSI design, computer  
architecture, signal processing, microprocessors systems design

**Hiro Mukai (<https://engineering.wustl.edu/faculty/Hiro-Mukai.html>)**

PhD, University of California, Berkeley  
Theory and computational methods for optimization, optimal  
control, systems theory, electric power system operations,  
differential games

**William F. Pickard (<https://engineering.wustl.edu/faculty/William-Pickard.html>)**

PhD, Harvard University  
Biological transport, electrobiology, energy engineering

**Daniel L. Rode (<https://engineering.wustl.edu/faculty/Daniel-Rode.html>)**

PhD, Case Western Reserve University  
Optoelectronics and fiber optics, semiconductor materials,  
light-emitting diodes and lasers, semiconductor processing,  
electronics

**Ervin Y. Rodin (<https://engineering.wustl.edu/faculty/Ervin-Rodin.html>)**

PhD, University of Texas at Austin  
Optimization, differential games, artificial intelligence,  
mathematical modeling

**Heinz Schaettler (<https://engineering.wustl.edu/faculty/Heinz-Schaettler.html>)**

PhD, Rutgers University  
Optimal control, nonlinear systems, mathematical models in  
biomedicine

**Barbara A. Shrauner (<https://engineering.wustl.edu/faculty/Barbara-Shrauner.html>)**

PhD, Harvard University (Radcliffe)  
Plasma processing, semiconductor transport, symmetries of  
nonlinear differential equations

**Donald L. Snyder (<https://engineering.wustl.edu/faculty/Donald-Snyder.html>)**

PhD, Massachusetts Institute of Technology  
Communication theory, random process theory, signal  
processing, biomedical engineering, image processing, radar

**Barry E. Spielman (<https://engineering.wustl.edu/faculty/Barry-Spielman.html>)**

PhD, Syracuse University  
High-frequency/high-speed devices, radiofrequency and  
microwave integrated circuits, computational electromagnetics

**Tzyh Jong Tarn (<https://engineering.wustl.edu/faculty/TJ-Tarn.html>)**

DSc, Washington University  
Quantum mechanical systems, bilinear and nonlinear systems,  
robotics and automation, life science automation

## Professors of Practice

**Dedric Carter (<https://engineering.wustl.edu/faculty/Dedric-Carter.html>)**

PhD, Nova Southeastern University  
MBA, MIT Sloan School of Management

**Dennis Mell (<https://engineering.wustl.edu/faculty/Dennis-Mell.html>)**

MS, University of Missouri–Rolla  
Industrial automation, robotics and mechatronics, product design  
and development with design-for-manufacturability emphasis,  
prototyping, manufacturing

**Ed Richter (<https://engineering.wustl.edu/faculty/Ed-Richter.html>)**

MS, Washington University  
Signal processing applications implemented on a variety of  
platforms, including ASIC, FPGA, DSP, microcontroller and  
desktop computers

**Jason Trobaugh (<https://engineering.wustl.edu/faculty/Jason-Trobaugh.html>)**

DSc, Washington University  
Ultrasound imaging, diffuse optical tomography, image-guided  
therapy, ultrasonic temperature imaging

## Teaching Professor

**James Feher** (<https://engineering.wustl.edu/faculty/James-Feher.html>)

PhD, Missouri University of Science and Technology  
Electrical engineering, computer science, mathematics and physics

## Senior Lecturers

**Martha Hasting** (<https://engineering.wustl.edu/faculty/Martha-Hasting.html>)

PhD, Saint Louis University  
Mathematics education

**Vladimir Kurenok** (<https://engineering.wustl.edu/faculty/Vladimir-Kurenok.html>)

PhD, Belarus State University (Minsk, Belarus)  
Probability and stochastic processes, stochastic ordinary and partial differential equations, financial mathematics

**Jinsong Zhang** (<https://engineering.wustl.edu/faculty/Jinsong-Zhang.html>)

PhD, University of Miami  
Modeling and performance analysis of wireless sensor networks, multi-source information fusion, ambiguous and incomplete information processing

## Lecturers

**Tsitsi Madziwa-Nussinov** (<https://engineering.wustl.edu/faculty/Tsitsi-Nussinov.html>)

PhD, University of California, Los Angeles

**Dorothy Wang** (<https://engineering.wustl.edu/faculty/Yunjing-Dorothy-Wang.html>)

PhD, Virginia Tech  
Fiber optic sensing and practical experience in sensor implementation and field test

## Professors Emeriti

**R. Martin Arthur** (<https://engineering.wustl.edu/faculty/Martin-Arthur.html>)

Newton R. and Sarah Louisa Glasgow Wilson Professor of Engineering  
PhD, University of Pennsylvania  
Ultrasonic imaging, electrocardiography

**David L. Elliott**

PhD, University of California, Los Angeles  
Mathematical theory of systems, nonlinear difference, differential equations

## Degree Requirements

### PhD in Electrical Engineering or Systems Science & Mathematics

The Department of Electrical & Systems Engineering at Washington University in St. Louis offers two PhD programs. Both the PhD in Electrical Engineering and the PhD in Systems Science & Mathematics are academic doctoral degrees designed mainly for full-time students interested in an academic, laboratory and/or industrial research and development career in a specialization within electrical engineering, systems, control or applied mathematics.

Students pursuing the Doctor of Philosophy degrees in Electrical Engineering or Systems Science & Mathematics must complete a minimum of 72 credit units of post-baccalaureate study consistent with the residency and other applicable requirements of Washington University and the Graduate School. These 72 units must consist of at least 36 course units and at least 24 units of research and may include work done to satisfy the requirements of a master's degree in a related discipline. Up to 24 units may be transferred to Washington University from another institution.

Each candidate for the PhD degree in Electrical Engineering and the PhD degree in Systems Science & Mathematics must do the following:

- Complete at least 36 credit units of post-baccalaureate courses.
- Complete the qualifying process (which includes a qualifying examination) and match with a research mentor before the second academic year of the program.
- Pass an oral preliminary research examination, to be completed within two academic years of completing the qualifying process.
- Satisfy the general teaching requirement as specified for the department.
- Write a doctoral dissertation that describes the results of original and creative research in a specialization within electrical engineering or systems science and mathematics.
- Pass a final oral examination in defense of the dissertation research.
- Take ESE 590 Electrical & Systems Engineering Graduate Seminar each semester.

### Energy, Environmental & Chemical Engineering

The Department of Energy, Environmental & Chemical Engineering (EECE) provides integrated and multidisciplinary programs of scientific education in cutting-edge areas, including the **PhD in Energy, Environmental & Chemical Engineering**. The research and educational activities of the department are

organized into four clusters: aerosol science and engineering; engineered aquatic processes; multiscale and electrochemical engineering; and synthetic biology and bioproduct engineering. These overlapping clusters address education and research in four thematic areas: energy; environmental engineering science; advanced materials; and sustainable technology for public health and international development. In addition to the core faculty in the department, faculty in the schools of Medicine, Arts & Sciences, Business, Law, and Social Work collaborate to provide students with a holistic education and to address topical problems of interest.

The department is a key participant in the university's Energy, Environment & Sustainability (<http://sustainability.wustl.edu/>) initiative, and it supports both the International Center for Energy, Environment and Sustainability (InCEES) (<http://inceeds.wustl.edu/>) and the McDonnell Academy Global Energy and Environment Partnership (MAGEEP) (<http://mageep.wustl.edu/>). Major externally funded research centers in the department include the Consortium for Clean Coal Utilization (<http://cleancoal.wustl.edu/>), the Nano Research Facility (NRF) and Jens Environmental Molecular and Nanoscale Analysis Laboratory (Jens Lab) (<https://nano.wustl.edu/>), and the Center for Aerosol Science and Engineering (CASE) (<https://aerosols.wustl.edu/>).

Contact: Monique Spears  
Email: [moniquespears@wustl.edu](mailto:moniquespears@wustl.edu)  
Website: <https://eece.wustl.edu/graduate/programs>

## Faculty

### Interim Chair and Professor

**Katharine Flores** (<https://engineering.wustl.edu/faculty/Katharine-Flores.html>)

Professor, Mechanical Engineering and Materials Science  
PhD, Stanford University  
Mechanical behavior of structural materials

### Endowed Professors

**Richard L. Axelbaum** (<https://engineering.wustl.edu/faculty/Richard-Axelbaum.html>)

Stifel and Quinette Jens Professor  
PhD, University of California, Davis  
Combustion, advanced energy systems, clean coal, aerosols, nanoparticle synthesis, rechargeable battery materials, thermal science

**Daniel E. Giammar** (<https://engineering.wustl.edu/faculty/Daniel-Giammar.html>)

Walter E. Browne Professor of Environmental Engineering  
PhD, California Institute of Technology  
Aquatic chemistry, environmental engineering, water quality, water treatment

**Randall Martin** (<https://engineering.wustl.edu/faculty/Randall-Martin.html>)

Raymond R. Tucker Distinguished Professor  
PhD, Harvard University  
Characterizing atmospheric composition to inform effective policies surrounding major environmental and public health challenges ranging from air quality to climate change

**Vijay Ramani** (<https://engineering.wustl.edu/faculty/Vijay-Ramani.html>)

Director of Graduate Studies  
Roma B. and Raymond H. Wittcoff Distinguished University Professor  
PhD, University of Connecticut  
Electrochemical engineering, energy conversion

**Jay R. Turner** (<https://engineering.wustl.edu/faculty/Jay-Turner.html>)

Vice Dean for Education  
James McKelvey Professor of Engineering Education  
DSc, Washington University  
Air quality planning and management, aerosol science and engineering, green engineering

### Professors

**Zhen (Jason) He** (<https://engineering.wustl.edu/faculty/Zhen-Jason-He.html>)

PhD, Washington University  
Environmental biotechnology, bioenergy production, biological wastewater treatment, resource recovery, bioelectrochemical systems, sustainable desalination technology, anaerobic digestion, forward osmosis, membrane bioreactors

**Young-Shin Jun** (<https://engineering.wustl.edu/faculty/Young-Shin-Jun.html>)

PhD, Harvard University  
Aquatic processes, molecular issues in chemical kinetics, environmental chemistry, surface/physical chemistry, environmental engineering, biogeochemistry, nanotechnology

**Yinjie Tang** (<https://engineering.wustl.edu/faculty/Yinjie-Tang.html>)

PhD, University of Washington  
Metabolic engineering, bioremediation

**Jian Wang** (<https://engineering.wustl.edu/faculty/Jian-Wang.html>)

Director of the Center for Aerosol Science and Technology (CASE)  
PhD, California Institute of Technology  
Aerosol properties and processes, nucleation and new particle formation, aerosols in the marine environment, effects of aerosols on cloud microphysical properties and macrophysical structure

## Associate Professors

**Rajan Chakrabarty** (<https://engineering.wustl.edu/faculty/Rajan-Chakrabarty.html>)

PhD, University of Nevada, Reno  
Characterizing the radiative properties of carbonaceous aerosols in the atmosphere; and researching gas phase aggregation of aerosols in cluster-dense conditions

**Marcus Foston** (<https://engineering.wustl.edu/faculty/Marcus-Foston.html>)

PhD, Georgia Institute of Technology  
Utilization of biomass resources for fuel and chemical production, renewable synthetic polymersure, and development of advanced aerosol instruments

**Tae Seok Moon** (<https://engineering.wustl.edu/faculty/Tae-Seok-Moon.html>)

PhD, Massachusetts Institute of Technology  
Metabolic engineering and synthetic biology

**Brent Williams** (<https://engineering.wustl.edu/faculty/Brent-Williams.html>)

PhD, University of California, Berkeley  
Aerosols, global climate issues, atmospheric sciences

**Fuzhong Zhang** (<https://engineering.wustl.edu/faculty/Fuzhong-Zhang.html>)

Francis Ahmann Career Development Associate Professor  
PhD, University of Toronto  
Metabolic engineering, protein engineering, synthetic and chemical biology

## Assistant Professors

**Peng Bai** (<https://engineering.wustl.edu/faculty/Peng-Bai.html>)

PhD, Tsinghua University, China  
Develop next-generation batteries, probe the in situ electrochemical dynamics of miniature electrodes down to nanoscales, capture the heterogeneous and stochastic nature of advanced electrodes, and identify the theoretical pathways and boundaries for the rational design of materials, electrodes and batteries through physics-based mathematical modeling and simulation

**Fangqiong Ling** (<https://engineering.wustl.edu/faculty/Fangqiong-Ling.html>)

PhD, University of Illinois at Urbana-Champaign  
Microbial ecosystem analysis and modelling, process modelling, machine learning, NextGen sequencing bioinformatics, environmental microbiology, and bioreactor design

**Kimberly M. Parker** (<https://engineering.wustl.edu/faculty/Kimberly-Parker.html>)

PhD, Stanford University  
Investigation of environmental organic chemistry in natural and engineered systems

**Elijah Thimsen** (<https://engineering.wustl.edu/faculty/Elijah-Thimsen.html>)

PhD, Washington University  
Gas-phase synthesis of inorganic nanomaterials for energy applications, and novel plasma synthesis approaches

## Research Assistant Professor

**Benjamin Kumfer** (<https://engineering.wustl.edu/faculty/Benjamin-Kumfer.html>)

DSc, Washington University  
Advanced coal technologies, biomass combustion, aerosol processes and health effects of combustion-generated particles

## Senior Lecturers

**Janie Brennan** (<https://engineering.wustl.edu/faculty/Janie-Brennan.html>)

Director of Undergraduate Studies  
PhD, Purdue University  
Biomaterials, chemical engineering, engineering education

**Raymond Ehrhard** (<https://engineering.wustl.edu/faculty/Ray-Ehrhard.html>)

BS, Missouri University of Science and Technology  
Water and wastewater treatment technologies, process energy management

## Lecturers

**Trent Silbaugh** (<https://engineering.wustl.edu/faculty/Trent-Silbaugh.html>)

PhD, University of Washington  
Chemical engineering education, catalysis, carbon capture and conversion

**Avni Solanki** (<https://engineering.wustl.edu/faculty/Avni-Solanki.html>)

PhD, University of Florida  
Wastewater, sustainable development, environmental engineering, and engineering education

## Affiliated Faculty

**Gary Moore**

Senior Lecturer for the Joint Engineering Program  
MS, Missouri University of Science and Technology  
Environmental management

## Adjunct Faculty

**Keith Tomazi**

PhD, University of Missouri-Rolla  
Process development engineering

**Grigoriy Yablonsky**

PhD, Boreskov Institute of Catalysis  
Chemical reaction engineering and heterogeneous catalysis

## Joint Faculty

### Doug Allen

PhD, Purdue University  
USDA Research Scientist, Danforth Plant Sciences Center  
Metabolic networks of oilseed plants

### Nathan Ravi

PhD, Virginia Polytechnic Institute  
Cataract, ocular biomaterials

## Senior Professor

### Milorad P. Dudukovic

Laura and William Jens Emeritus Professor  
PhD, Illinois Institute of Technology  
Chemical reaction engineering, multiphase reactors, visualization of multiphase flows, tracer methods, environmentally benign processing

## Degree Requirements

### Doctor of Philosophy (PhD) in Energy, Environmental & Chemical Engineering (EECE)

The doctoral degree requires a total of 72 credits beyond the bachelor's degree. Of these, a minimum of 36 credits must be graduate course work, and a minimum of 30 credits must be doctoral thesis research units. To be admitted to candidacy, students must have completed at least 18 credits at Washington University, have an overall grade-point average of at least 3.25, and pass the qualifying examination. Note that, to be eligible to take the qualifying exam, students must maintain a 3.25 GPA as described in the EECE PhD handbook. All students are required to enroll in the department seminar every semester to receive passing grades. The first-year students must complete the core curriculum, perform two research rotations, and find a permanent research adviser. Then, within 18 months after the qualifying exam (generally in their third year), students should defend their thesis proposal.

After successful proposal defense, students should provide their research updates through annual meetings or reports with their thesis committee until their graduation. While conducting doctoral research, students should perform in a professional manner in their research lab and/or office setting and be in compliance with all safety and regulatory requirements for their research projects. During the doctoral program, students must satisfy their fundamental and advanced teaching requirements by participating in mentored teaching experiences in the department for two or three semesters, by attending professional development workshops from the Teaching Center, and by presenting at least two formal presentations at the local level or

at national or international conferences. Upon completion of their dissertation, students must present their dissertation research in a public forum and successfully defend the dissertation before their thesis committee.

For more detailed guidelines, please refer to the EECE doctoral studies handbook available on the EECE Graduate Degree Programs webpage (<https://eece.wustl.edu/graduate/programs/Pages/PhD-Energy-Environmental-Chemical-Eng.aspx>).

## Imaging Science (Interdisciplinary PhD)

The PhD in Imaging Science program at Washington University in St. Louis is **one of only two** such programs in the United States. This program offers an interdisciplinary curriculum that focuses on the technology of imaging with applications that range from cancer diagnosis to virtual reality.

## What Is Imaging Science?

Imaging science is an interdisciplinary academic discipline that broadly addresses the design and optimization of imaging systems and the extraction of information from images. It builds on contributions from traditional fields such as biomedical engineering, electrical engineering and computer science as well as from physics, applied mathematics, biology and chemistry.

## What Can You Do With a PhD in Imaging Science?

The high demand for personnel with training in imaging science is reflected in government policy and funding opportunities. Many academic, industrial and national laboratory positions exist for highly qualified candidates. Graduates of the program will be prepared for careers in academic research or in industry that requires expertise in the quantitative principles of imaging.

## Curriculum Focus

- Mathematical and computational principles of image formation
- Image analysis
- Image understanding
- Image quality assessment

This interdisciplinary program is unique in that it brings together expert faculty from the McKelvey School of Engineering (<https://engineering.wustl.edu/Pages/home.aspx>) and the School of Medicine (<https://medicine.wustl.edu/>) to provide students with the freedom and flexibility to learn from leading imaging experts and to engage in impactful research.

## History

Washington University has been a leader in the technology and advancement of imaging science for more than 125 years. During the 1920s, Washington University researchers were the first to use X-rays to view the gallbladder. During the 1970s, research by Michel Ter-Pogossian at the university's Mallinckrodt Institute of Radiology led to the development of the PET scanner.

Website: <https://engineering.wustl.edu/academics/programs/imaging-science/index.html>

## Faculty

**Jody O'Sullivan** (<https://engineering.wustl.edu/faculty/Joseph-O'Sullivan.html>)

Co-Director  
Samuel C. Sachs Professor of Electrical Engineering  
PhD, University of Notre Dame  
Electrical & Systems Engineering

**Joe Culver** (<https://www.mir.wustl.edu/research/research-laboratories/optical-radiology-laboratory-orl/people/joseph-culver/>)

Co-Director  
Professor  
PhD, University of Pennsylvania  
Radiology; Biomedical Engineering

**Sam Achilefu** (<http://orl.wustl.edu/?id=122>)  
Michel M. Ter-Pogossian Professor of Radiology  
University of Nancy, France  
Radiology; Biomedical Engineering

**Hongyu An** (<https://www.mir.wustl.edu/research/research-laboratories/biomedical-magnetic-resonance-laboratory-bmrl/people/bio-an/>)

Associate Professor  
PhD, Washington University  
Radiology; Biomedical Engineering

**Beau Ances** (<https://anceslab.wustl.edu/people/beau-ances-md-phd/>)

Professor  
MD, University of Pennsylvania  
PhD, University of Pennsylvania  
Neurology; Biomedical Engineering

**Deanna Barch** (<https://psychiatry.wustl.edu/people/deanna-barch-phd/>)

Gregory B. Couch Professor of Psychiatry  
PhD, University of Illinois  
Psychological & Brain Sciences; Biomedical Engineering

**Phil Bayly** (<https://engineering.wustl.edu/faculty/Philip-Bayly.html>)

Lilyan and E. Lisle Hughes Professor of Mechanical Engineering  
PhD, Duke University  
Mechanical Engineering & Materials Science

**Aaron Bobick** (<https://engineering.wustl.edu/faculty/Aaron-Bobick.html>)

James M. McKelvey Professor and Dean  
PhD, Massachusetts Institute of Technology  
Computer Science & Engineering

**Ayan Chakrabarti** (<https://engineering.wustl.edu/faculty/Ayan-Chakrabarti.html>)

Assistant Professor  
PhD, Harvard University  
Computer Science & Engineering

**Hong Chen** (<https://engineering.wustl.edu/faculty/Hong-Chen.html>)

Assistant Professor  
PhD, University of Washington  
Biomedical Engineering

**James Fitzpatrick** (<http://neurosci.wustl.edu/people/faculty/james-fitzpatrick/>)

Associate Professor  
PhD, University of Bristol, United Kingdom  
Cell Biology & Physiology; Biomedical Engineering

**Michael Gach** (<https://radonc.wustl.edu/faculty/michael-gach/>)

Associate Professor  
PhD, University of Pittsburgh  
Radiation Oncology; Biomedical Engineering

**Roch Guérin** (<https://engineering.wustl.edu/faculty/Roch-Guerin.html>)

Harold B. and Adelaide G. Welge Professor of Computer Science  
PhD, California Institute of Technology  
Computer Science & Engineering

**Dennis Hallahan** (<https://wuphysicians.wustl.edu/for-patients/find-a-physician/dennis-e-hallahan/>)

Elizabeth H. and James S. McDonnell III Distinguished Professor of Medicine  
MD, Rush University  
Radiation Oncology; Biomedical Engineering

**Tim Holy** (<http://neurosci.wustl.edu/people/faculty/timothy-holy/>)

Alan A. and Edith L. Wolff Professor of Neuroscience  
PhD, Princeton University  
Neuroscience; Biomedical Engineering



**Geoff Hugo (<https://radonc.wustl.edu/faculty/geoffrey-hugo-phd/>)**

Professor  
PhD, University of California, Los Angeles  
Radiation Oncology; Biomedical Engineering

**Abhinav Jha (<https://engineering.wustl.edu/faculty/Abhinav-Jha.html>)**

Assistant Professor  
PhD, University of Arizona  
Biomedical Engineering; Radiology

**Tao Ju (<https://engineering.wustl.edu/faculty/Tao-Ju.html>)**

Professor  
PhD, Rice University  
Computer Science & Engineering

**Ulugbek Kamilov (<https://engineering.wustl.edu/faculty/Ulugbek-Kamilov.html>)**

Assistant Professor  
PhD, École Polytechnique Fédérale de Lausanne, Switzerland  
Computer Science & Engineering; Electrical & Systems Engineering

**Gregory Lanza (<https://cardiology.wustl.edu/faculty/gregory-m-lanza-md-phd-facc/>)**

Oliver M. Langenberg Chair, Distinguished Professor of the Science and Practice of Medicine  
MD, Northwestern University  
PhD, University of Georgia  
Medicine; Biomedical Engineering

**Richard Laforest (<https://www.mir.wustl.edu/research/research-laboratories/radiological-chemistry-and-imaging-laboratory-rcil/people/richard-laforest/>)**

Associate Professor  
PhD, University of Laval, Canada  
Radiology

**Matthew Lew (<https://engineering.wustl.edu/faculty/Matthew-Lew.html>)**

Assistant Professor  
PhD, Stanford University  
Electrical & Systems Engineering

**Harold Li (<https://radonc.wustl.edu/faculty/harold-li/>)**

Associate Professor  
PhD, Friedrich-Alexander-Universität Erlangen-Nürnberg, Germany  
Radiation Oncology; Biomedical Engineering

**Daniel Marcus (<https://www.mir.wustl.edu/research/research-support-facilities/neuroimaging-informatics-analysis-center-niac/our-staff/niac-staff-dan-marcus/>)**

Associate Professor  
PhD, Washington University  
Radiology; Biomedical Engineering

**Sasa Mutic**

Professor  
PhD, University of Missouri-Columbia  
Radiation Oncology; Biomedical Engineering

**Arye Nehorai (<https://engineering.wustl.edu/faculty/Arye-Nehorai.html>)**

Eugene and Martha Lohman Professor of Electrical Engineering  
PhD, Stanford University  
Electrical & Systems Engineering

**Philip Payne (<https://publichealth.wustl.edu/scholars/philip-r-payne/>)**

Robert J. Terry Professor  
PhD, Columbia University  
Medicine; Biomedical Engineering

**Jonathan E. Peelle (<https://oto.wustl.edu/people/jonathan-e-peelee-phd/>)**

Associate Professor of Otolaryngology  
PhD, Brandeis University  
Otolaryngology

**David Piston (<https://pistonlab.wustl.edu/>)**

Professor  
PhD, University of Illinois  
Cell Biology & Physiology; Biomedical Engineering

**Yoram Rudy (<https://engineering.wustl.edu/faculty/Yoram-Rudy.html>)**

Fred Saigh Distinguished Professor of Engineering  
PhD, Case Western Reserve University  
Biomedical Engineering

**Joshua Shimony (<https://sites.wustl.edu/nillabs/people/joshua-s-shimony/>)**

Professor of Radiology  
PhD, University of Tennessee  
Department of Radiology

**Koresh Shoghi (<https://www.mir.wustl.edu/research/research-laboratories/radiological-chemistry-and-imaging-laboratory-rcil/people/biotemplate-rcil/koresh-shoghi/>)**

Associate Professor  
PhD, University of California, Los Angeles  
Radiology; Biomedical Engineering

**Monica Shokeen (<https://www.mir.wustl.edu/research/research-laboratories/optical-radiology-laboratory-orl/people/bio-page-template/monica-shokeen/>)**

Assistant Professor  
PhD, Washington University  
Radiology

**Yuan-Chuan Tai** (<https://www.mir.wustl.edu/research/research-laboratories/radiological-chemistry-and-imaging-laboratory-rcil/people/bio-template3/yuan-chuan-tai/>)

Associate Professor  
PhD, University of California, Los Angeles  
Radiology; Biomedical Engineering

**David Van Essen** ([http://dbbs.wustl.edu/faculty/Pages/faculty\\_bio.aspx?SID=1569](http://dbbs.wustl.edu/faculty/Pages/faculty_bio.aspx?SID=1569))

Alumni Endowed Professor  
PhD, Harvard University  
Neuroscience; Biomedical Engineering

**Richard Wahl** (<https://wuphysicians.wustl.edu/for-patients/find-a-physician/richard-leo-wahl/>)

Elizabeth E. Mallinckrodt Professor of Radiology  
MD, Washington University  
Radiology

**Yong Wang** (<https://reproductivesciences.wustl.edu/people/yong-wang/>)

Assistant Professor  
PhD, Washington University  
Obstetrics & Gynecology; Radiology; Biomedical Engineering

**Pam Woodard** (<https://www.mir.wustl.edu/research/research-laboratories/precision-radio-theranostics-translational-laboratories-prt2l/people/pam-woodard/>)

Professor  
MD, Duke University  
Radiology; Biomedical Engineering

**Deshan Yang** (<https://radonc.wustl.edu/faculty/deshan-yang-phd/>)

Associate Professor  
PhD, University of Wisconsin-Madison  
Radiation Oncology; Biomedical Engineering

**Tiezhi Zhang** (<https://radonc.wustl.edu/faculty/tiezhi-zhang-phd/>)

Assistant Professor  
PhD, University of Wisconsin-Madison  
Radiation Oncology; Biomedical Engineering

**Jie Zheng** (<https://www.mir.wustl.edu/research/research-laboratories/cardiovascular-imaging-laboratory-cvil/people/cvil-faculty/bio-jie-zheng/>)

Associate Professor  
PhD, University of Cincinnati  
Radiology; Biomedical Engineering

**Quing Zhu** (<https://engineering.wustl.edu/faculty/Quing-Zhu.html>)

Professor  
PhD, University of Pennsylvania  
Biomedical Engineering

## Professor Emeritus

**Martin Arthur** (<https://engineering.wustl.edu/faculty/Martin-Arthur.html>)

Newton R. and Sarah Louisa Glasgow Wilson Professor of Engineering  
PhD, University of Pennsylvania  
Electrical & Systems Engineering

## Degree Requirements PhD in Imaging Science

### Requirements

To complete the PhD in Imaging Science, students must do the following:

- Maintain an average grade of B (3.0 grade-point average) for all 72 units (up to 24 graduate units may be transferred with approval)
- Complete courses with no more than one grade below B-
- Complete at least one semester-long research rotation
- Become integrated with a research group
- Pass a qualifying exam
- Successfully defend a thesis proposal
- Present and successfully defend a dissertation
- Complete the mentored teaching experience required by their administrative home department

### Courses

#### Required core courses (22 units):

- BME/CSE/ESE Mathematics of Imaging Science (3 units)
- BME 593 Computational Methods for Imaging Science (3 units)
- ESE 506 Seminar in Imaging Science and Engineering (1 unit)
- ESE 589 Biological Imaging Technology (3 units)
- BME/ESE 5907 Theoretical Imaging Science (3 units)
- BME/CSE/ESE Image Analysis and Data-Driven Imaging (3 units)
- BME/ESE/CSE Practicum in Computational Imaging (3 units)
- BME 601C Research Rotation (3 units) (refer to the Research Rotations (p. 91) section later on this page)

#### Elective imaging courses from any of the following categories (at least 12 units):

- Computational Imaging & Theory
- Imaging Sensors & Instrumentation
- Image Formation & Imaging Physics
- Translational Biomedical Imaging
- Medical Physics

## Progression of Courses (Typical)

### First Semester

- BME/CSE/ESE Mathematics of Imaging Science (3 units)
- ESE 506 Seminar in Imaging Science & Engineering (1 unit)
- BME 601 Research Rotation (3 units) (refer to the Research Rotations (p. 91) section later on this page)
- Elective (3 units)

### Second Semester

- BME 593 Computational Methods for Imaging Science (3 units)
- ESE 589 Biological Imaging Technology (3 units)
- Elective (3 units) **or** optional second research rotation BME 601 (3 units)

### Third Semester

- BME 5907 Theoretical Imaging Science (3 units)
- BME/CSE/ESE Image Analysis & Data-Driven Imaging (3 units)
- Elective (3 units)

### Fourth Semester

- BME/ESE/CSE Practicum in Computational Imaging (3 units)
- Elective or doctoral research (3 units)
- Elective or doctoral research (3 units)

## Elective Options

### Elective Courses — Computational Imaging & Theory

- BME/ESE Adaptive Imaging
- BME/ESE Wave Physics and Applied Optics for Imaging Scientists
- CSE 501N Programming Concepts and Practice
- CSE 511A Introduction to Artificial Intelligence
- CSE 513T Theory of Artificial Intelligence & Machine Learning
- CSE 515T Bayesian Methods in Machine Learning
- CSE 517A Machine Learning
- CSE 519T Advanced Machine Learning
- CSE 543T Algorithms for Nonlinear Optimization
- CSE 546T Computational Geometry
- CSE 554A Geometric Computing for Biomedicine
- CSE 555A Computational Photography
- CSE 559A Computer Vision
- CSE 566S High Performance Computer Systems
- ESE 523 Information Theory
- ESE 524 Detection and Estimation Theory
- ESE 588 Quantitative Image Processing

### Elective Courses — Imaging Sensors & Instrumentation

- BME Imaging Instrumentation

### Elective Courses — Image Formation & Imaging Physics

- BME 494 Ultrasound Imaging
- BME 591 Biomedical Optics I
- BME 5XX Advanced Topics in Ultrasound Imaging (To be developed)
- BME 5XX Magnetic Resonance Imaging (To be developed)
- BME 5XX Imaging in Nuclear Medicine (To be developed)
- ESE 582/BME 5820 Fundamentals and Applications of Modern Optical Imaging

### Elective Courses — Translational Biomedical Imaging

- BME Therapeutic Applications of Biomedical Imaging

### Elective Courses — Medical Physics

- BME 507 Radiological Physics and Dosimetry
- BME 5071 Radiobiology
- BME 5072 Radiation Oncology Physics
- BME 5073 Radiation Protection and Safety

### Approved Life Science Courses

- BME 503A Cell & Organ Systems
- BME 530A Molecular Cell Biology for Engineers
- BME 538 Cell Signal Transduction
- BME 5902 Cellular Neurophysiology
- Biol 404 Laboratory of Neurophysiology
- Biol 4071 Developmental Biology
- Biol 4580 Principles of Human Anatomy & Development
- Biol 4810 General Biochemistry
- Biol 4820 General Biochemistry II
- Biol 5068 Fundamentals of Molecular Cell Biology
- Biol 5319 Molecular Foundations of Medicine
- Biol 5053 Immunobiology (4 units)
- Biol 5146 Principles and Applications of Biological Imaging
- Biol/Chem 5147 Contrast Agents for Biological Imaging
- Biol 5224 Molecular, Cell, and Organ Systems
- Biol 5285 Fundamentals of Mammalian Genetics
- Biol 5352 Developmental Biology
- Biol 548 Nucleic Acids and Protein Biosynthesis
- Biol 5488 Genomics
- Biol 5571 Cellular Neurobiology (4 units)
- Biol 5651 Neural Systems
- Biol 5663 Neurobiology of Disease

**Approved Mathematics Courses** — Any graduate-level course within the Department of Mathematics and Statistics is approved.

## Research Rotations

During their first year, students are required to register for and complete at least one research rotation (3 units) with program faculty mentors. The research rotations allow students to sample different research projects and laboratory working environments before selecting the group in which they will carry out the PhD dissertation research.

A rotation will be chosen in consultation with program faculty and must be mutually agreeable to both the student and the mentor. At the completion of each rotation, the student must submit to the mentor and director a written report approved by the mentor.

## Qualifying Exam

A written qualifying exam will be administered during the spring of the student's second year of graduate school. The examining committee, which will develop and grade the exam, will consist of three members of the Imaging Science PhD Program Committee. The director of the graduate program will approve the committee, the members of which will be suggested by the thesis adviser.

Students will choose three out of the following four exam topics:

- Mathematics of Imaging Science
- Imaging Physics & Image Formation Methods
- Image Analysis & Data-Driven Imaging
- Theoretical Image Science

## Finding a Thesis Research Mentor

Because the PhD is a research degree, the student is expected to become integrated within a research group. By the end of the first year of study, students should have found a thesis adviser who will oversee their PhD research and assume financial responsibility for their stipend, tuition, health insurance and student fees. The thesis adviser must be a faculty member on the Imaging Science PhD Program Committee with the title of professor, associate professor or assistant professor. Failure to find a research adviser by May 1 will result in the student being placed on probation that can last until August 31. During that time, the student must continue to seek a research adviser. Failure to find a research adviser by August 31 will lead to dismissal from the PhD program and termination of funding.

The student's admission application should include transcripts and letters of evaluation. The Graduate Admissions Committee will review all applications and construct a ranked list of candidates. This list and the associated application packages will be forwarded to the dean of the Graduate School for approval for admission to the program. Following approval by the dean of the Graduate School and the director of the graduate program, the chair of the Graduate Admissions Committee will notify the students who have been accepted by letter.

## Research Presentation/Thesis Proposal

Before the end of their third year, the student will give an oral presentation of their proposed PhD project — with the necessary background to support it — to the Thesis Committee. This committee will consist of six members; four members must be members of the Imaging Science PhD Program Committee. At least one committee member must be chosen from outside of the Imaging Science PhD Program Committee, and this individual must be a tenured or tenure-track faculty member at Washington University. The committee will be chaired by the PhD mentor. At least two weeks prior to the presentation, the student will present to the Thesis Examination Committee a written document outlining the research background, proposed procedures, preliminary results and plans for completion. The required document will typically be between 15 and 30 pages in length, and it must contain a comprehensive bibliography.

The student will be placed on probation if they fail to pass their Thesis Proposal by the sixth semester. The student will be given a second opportunity to pass the exam during their seventh semester. If the student passes the second exam and meets the other program requirements (e.g., grades), they may continue the program without prejudice. If the student fails the exam a second time, they will be terminated from the PhD program.

## Dissertation

The student will prepare a written dissertation for examination by the Thesis Examination Committee and defend the dissertation before this committee. Should a member of this committee be unable to participate, the director of the graduate program, in consultation with the PhD mentor, will choose a replacement. If the committee members feel that the dissertation has deficiencies, they may recommend that the candidate address them and send the revised dissertation to the committee members for approval. The committee may also recommend that the candidate present another oral defense of the modified work. The Thesis Committee will inform the director of the graduate program, and they will warn the student in writing that the student must submit a revised dissertation and pass the oral defense (if recommended) in order to complete the PhD program. If, after revision and reexamination, the Thesis Committee still finds deficiencies and cannot reach unanimous agreement to approve the dissertation, the Graduate School's Policy on Dissenting Votes will apply.

## Teaching Requirements

Students in the PhD program will receive formal pedagogical training by attending a minimum of two Teaching Workshops offered by the Washington University Teaching Center (<https://teachingcenter.wustl.edu/events/>). They will be expected to fulfill the teaching requirements of their designated administrative home department. The teaching requirements must be completed before the student submits their doctoral dissertation to the Graduate School.

## Materials Science & Engineering

The Institute of Materials Science & Engineering (IMSE) at Washington University in St. Louis offers a unique, interdisciplinary PhD in Materials Science & Engineering that crosses traditional departmental and school boundaries. The field of materials science and engineering focuses on the study, development and application of new materials with desirable properties, with the goal of enabling new products and superior performance regimes. Disciplines in the physical sciences (e.g., chemistry, physics) play a central role in developing the fundamental knowledge that is needed to design materials for a variety of engineering applications (e.g., mechanical engineering, electrical engineering, biomedical engineering). Building on training that spans from fundamental to applied sciences, materials scientists and engineers integrate this fundamental knowledge to develop new materials and match them with appropriate technological needs.

The IMSE is well positioned to address the needs of a student seeking a truly interdisciplinary experience. The IMSE brings together a diverse group of faculty from departments in Arts & Sciences, the McKelvey School of Engineering, and the School of Medicine. The IMSE also oversees shared research and instrument facilities, develops partnerships with industry and national laboratories, and facilitates outreach activities.

Current focused areas of research and advanced graduate education within the IMSE include the following:

- Artificial intelligence in materials discovery and design
- Biomedical, bio-derived, and bio-inspired materials
- Materials for energy and environmental technologies
- Quantum and photonic materials and devices

Contact: Beth Gartin  
Phone: 314-935-7191  
Email: bgartin@wustl.edu  
Website: <http://imse.wustl.edu>

## Faculty

### Director

**Katharine M. Flores** (<https://engineering.wustl.edu/faculty/Katharine-Flores.html>)

Professor, Mechanical Engineering & Materials Science  
PhD, Stanford University

Professor Flores' primary research interest is the mechanical behavior of high-performance structural materials, with particular emphasis on understanding structure-processing-property relationships in bulk metallic glasses and their composites.

### Professors

**Jianjun Guan** (<https://engineering.wustl.edu/faculty/Jianjun-Guan.html>)

Professor, Mechanical Engineering & Materials Science  
PhD, Zhejiang University

Professor Guan's research interests are in biomimetic biomaterials synthesis and scaffold fabrication; bioinspired modification of biomaterials; injectable and highly flexible hydrogels; bioimageable polymers for MRI and EPR imaging and oxygen sensing; mathematical modeling of scaffold structural and mechanical properties; stem cell differentiation; neural stem cell transplantation for brain tissue regeneration; and bone and cardiovascular tissue engineering.

**Kenneth F. Kelton** (<https://physics.wustl.edu/people/kenneth-f-kelton/>)

Arthur Holly Compton Professor of Arts & Sciences, Physics  
PhD, Harvard University

Professor Kelton is involved in the study and production of titanium-based quasicrystals and related phases; fundamental investigations of time-dependent nucleation processes; modeling of oxygen precipitation in single crystal silicon; structure of amorphous materials; relation between structure and nucleation barrier; and hydrogen storage in quasicrystals.

**Vijay Ramani** (<https://engineering.wustl.edu/Profiles/Pages/Vijay-Ramani.aspx>)

Roma B. & Raymond H. Wittcoff Distinguished University  
Professor of Environment & Energy  
PhD, University of Connecticut

Vijay Ramani's research interests lie at the confluence of electrochemical engineering, materials science and renewable and sustainable energy technologies. The National Science Foundation, Office of Naval Research, ARPA-E, and Department of Energy have funded his research, with mechanisms including an NSF CAREER award (2009) and an ONR Young Investigator Award (ONR-YIP; 2010).

**Srikanth Singamaneni** (<https://engineering.wustl.edu/Profiles/Pages/Srikanth-Singamaneni.aspx>)

The Lilyan & E. Lisle Hughes Professor, Mechanical Engineering & Materials Science  
PhD, Georgia Institute of Technology

Professor Singamaneni's research interests include plasmonic engineering in nanomedicine (in vitro biosensing for point-of-care diagnostics, molecular bioimaging, nanotherapeutics); photovoltaics (plasmonically enhanced photovoltaic devices); surface-enhanced Raman scattering (SERS)-based chemical sensors, with particular emphasis on the design and fabrication of unconventional and highly efficient SERS substrates; hierarchical organic/inorganic nanohybrids as multifunctional

materials; bioinspired structural and functional materials; polymer surfaces and interfaces; responsive and adaptive materials and scanning probe microscopy; and surface force spectroscopy of soft and biological materials.

**Fuzhong Zhang (<https://engineering.wustl.edu/faculty/Fuzhong-Zhang.html>)**

Professor, Energy, Environmental & Chemical Engineering  
PhD, University of Toronto

Professor Zhang's research focuses on developing synthetic biology tools and systems for the sustainable production of structurally defined chemicals and high-performance materials. Current research projects include the following: (1) engineering microbial metabolic dynamics and heterogeneity; (2) engineering metabolic pathways to produce structure-defined biofuels and chemicals; and (3) developing microbial factories to produce high-performance materials.

## Associate Professors

**Mikhail Y. Berezin ([http://dbbs.wustl.edu/faculty/Pages/faculty\\_bio.aspx?SID=6263](http://dbbs.wustl.edu/faculty/Pages/faculty_bio.aspx?SID=6263))**

Associate Professor, Radiology  
PhD, Moscow Institute of Oil and Gas/Institute of Organic Chemistry

Dr. Berezin's lab focuses on the development of novel optically active probes ranging from small molecules to nanoparticles and the development of optical instrumentation for spectroscopy and imaging using knowledge of excited states. The lab's research interest lies in the investigation and application of molecular excited states and their reactions for medical imaging and clinical treatment.

**Marcus Foston (<https://engineering.wustl.edu/faculty/Marcus-Foston.html>)**

Associate Professor, Energy, Environmental & Chemical Engineering  
PhD, Georgia Institute of Technology

Professor Foston's research program seeks to develop innovative and novel routes to exploit and utilize lignocellulosic biomass by taking advantage of materials involved in industries such as agriculture, papermaking, and forestry products.

**Elijah Thimsen (<https://engineering.wustl.edu/faculty/Elijah-Thimsen.html>)**

Associate Professor, Energy, Environmental & Chemical Engineering  
PhD, Washington University in St. Louis

Professor Thimsen's research focus is on the synthesis of nanostructured materials and molecular chemicals using non-equilibrium plasma and aerosol approaches.

## Assistant Professors

**Sang-Hoon Bae (<https://engineering.wustl.edu/faculty/Sang-Hoon-Bae.html>)**

Assistant Professor, Mechanical Engineering & Materials Science  
PhD, University of California, Los Angeles

Professor Bae's research group focuses on tackling the challenges in materials science with thermodynamics, kinetics, and solid-state physics.

**Peng Bai (<https://engineering.wustl.edu/faculty/Peng-Bai.html>)**

Assistant Professor, Energy, Environmental & Chemical Engineering  
PhD, Tsinghua University, Beijing

Professor Bai's research focuses on the development of next-generation batteries. Knowledge and tools developed in the Bai Group also apply to and benefit the design of other electrochemical energy systems, like supercapacitors and fuel cells.

**Erik Henriksen (<https://physics.wustl.edu/people/erik-henriksen/>)**

Assistant Professor, Physics  
PhD, Columbia University

Professor Henriksen's lab research is centered on the properties of electrons confined to two dimensions. This remarkable system has yielded a tremendous amount of interesting and important physics over the past several decades, from the integer and fractional quantum Hall effects to the groundbreaking discoveries of graphene and other atomically thin crystals and especially to the recent realization of the topological nature of the electronic structure of a surprising number of materials both novel and familiar.

**Nathaniel Huebsch (<https://imse.wustl.edu/people/nathaniel-huebsch/>)**

Assistant Professor, Biomedical Engineering  
PhD, Harvard University

Professor Huebsch's research focus is in basic and translational stem cell mechanobiology, with specific focus on hydrogels to control cell-mediated tissue repair and three-dimensional, iPSC-based heart-in-a-dish models to study the influence of mechanical loading and genetics on arrhythmia and contractility.

**Matthew Lew (<https://engineering.wustl.edu/faculty/Matthew-Lew.html>)**

Assistant Professor, Electrical & Systems Engineering  
PhD, Stanford University

Professor Lew and his students build advanced imaging systems to study biological and chemical systems at the nanoscale, leveraging innovations in applied optics, signal and image processing, design optimization, and physical chemistry. Their advanced nanoscopes (microscopes with nanometer resolution)

visualize the activity of individual molecular machines inside and outside living cells. Examples of new technologies developed in the LeW Lab include (1) using tiny fluorescent molecules as sensors that can detect amyloid proteins; (2) designing new "lenses" to create imaging systems that can visualize how molecules move and tumble; and (3) new imaging software that minimizes artifacts in super-resolution images.

**Rohan Mishra (<https://engineering.wustl.edu/faculty/Rohan-Mishra.html>)**

Assistant Professor, Mechanical Engineering & Materials Science  
PhD, Ohio State University

Professor Mishra's research interest is to develop quantitative structure-property correlations in materials starting from the atomic scale. To develop such correlations, his group synergistically combines electronic structure calculations with atomic-resolution electron microscope imaging and spectroscopy. The end goal is the rational design of materials with properties tailored for electronic, optical, magnetic and energy applications. Current research topics include perovskite materials for photovoltaic and optoelectronic applications, novel electrocatalysts, oxidizers, and wide-bandgap semiconductors.

**Sheng Ran (<https://physics.wustl.edu/people/sheng-ran/>)**

Assistant Professor, Physics  
PhD, Iowa State University

Professor Ran's research aims to realize and understand exotic states of quantum materials using combined techniques of bulk crystal synthesis, electric and thermal transport measurements under extreme temperature, pressure and magnetic field conditions, and neutron and high-energy X-ray scattering.

**Jai Rudra (<https://engineering.wustl.edu/faculty/Jai-Rudra.html>)**

Assistant Professor, Biomedical Engineering  
PhD, Louisiana Tech University

Jai Rudra's lab is interested in the development of nanoscale biomaterials such as nanofibers, nanoparticles, virus-like particles, and hydrogels for engaging the immune system to induce protective antibody and cell-mediated immune responses against diseases such as tuberculosis, melanoma, and flavivirus infections (i.e., West Nile and Zika). He is also investigating the development of vaccines against drugs of addiction such as cocaine.

**Chuan Wang (<https://engineering.wustl.edu/faculty/Chuan-Wang.html>)**

Assistant Professor, Electrical & Systems Engineering  
PhD, University of Southern California

Professor Wang's research focus is on two-dimensional semiconductor nanoelectronics and optoelectronics, stretchable electronics, printed electronics, and sensors and actuators.

**Patricia Weisensee (<https://engineering.wustl.edu/faculty/Patricia-Weisensee.html>)**

Assistant Professor, Mechanical Engineering & Materials Science  
PhD, University of Illinois at Urbana-Champaign

Professor Weisensee's work focuses on understanding the interplay of fluid dynamics, heat transfer, and liquid-solid interactions of droplets and other multi-phase systems. Practical applications of interest are phase change heat transfer for thermal management, thermal storage, water harvesting, metallic additive manufacturing, and droplet interactions with biological and natural systems.

**Chong Zhu (<https://physics.wustl.edu/people/chong-zu/>)**

Assistant Professor, Physics  
PhD, Tsinghua University

Professor Zu's research interests lie at the interface between atomic, molecular, and optical physics; condensed matter physics; and quantum information.

## Degree Requirements

### Interdisciplinary PhD in Materials Science & Engineering

To earn a PhD degree, students must complete the Graduate School requirements, along with specific program requirements. Courses include the following:

- Four IMSE Core Courses (12 units)

Code	Title	Units
MEMS 5610	Quantitative Materials Science & Engineering	3
Physics 537	Kinetics of Materials	3
EECE 502	Advanced Thermodynamics in EECE	3
Chem 465 or Physics 472	Solid-State and Materials Chemistry Solid State Physics	3
Total Units		12

- Two semesters IMSE 500 First-Year Research Rotation (6 units)
- Three courses (9 units) from a preapproved list of Materials Science & Engineering electives
- A minimum of 12 units of graduate-level technical elective courses in mathematics or any science or engineering department, to reach a total of at least 36 academic credit units
  - A maximum of 3 units of IMSE 505 Material Science Journal Club will be permitted toward this requirement.
  - Any 400-level courses not included on the preapproved list of Materials Science & Engineering electives must be approved by the Graduate Studies Committee.

- A maximum of 12 units of 400-level courses may be applied toward the required 36 academic credit units. Undergraduate-only courses (below the 400 level) are generally not permitted by the Graduate School and may not be used to fulfill this requirement.
- IMSE 501 IMSE Graduate Seminar every semester of full-time enrollment
- 18 to 36 units of IMSE 600 Doctoral Research (Students must identify an IMSE faculty member willing and able to support their dissertation research on a materials-related topic.)
- Students must maintain a grade-point average of at least 3.0 for all graded courses and have no more than one grade of B- or below in a core course or a Materials Science & Engineering elective.

**Additional program requirements include the following:**

- Complete research ethics training by the end of the third semester
- Successfully complete teaching requirements:
  - Attend two or more Teaching Center workshops
  - Complete 15 units of mentored teaching experience
- Pass the IMSE Qualifying Examination (oral and written components)
- Maintain satisfactory research progress on a topic in materials science, as determined by the dissertation adviser and the mentoring committee
- Successfully complete the dissertation proposal and presentation, with approval from the dissertation examination committee
- Successfully complete and defend a PhD dissertation, with final approval from the dissertation examination committee

**Failure to meet these requirements will result in dismissal from the program.**

## Course Plan

### Year 1

#### Fall Semester

- Advanced Thermodynamics in EECE (EECE 502)
- Quantitative Materials Science & Engineering (MEMS 5610)
- IMSE Research Rotation (IMSE 500)
- IMSE Graduate Seminar (IMSE 501)
- Solid-State and Materials Chemistry (Chem 465) or elective

#### Spring Semester

- Kinetics of Materials (Physics 537)
- IMSE First-Year Research Rotation (IMSE 500)

- IMSE Graduate Seminar (IMSE 501)
- Solid State Physics (Physics 472) or elective
- Elective

#### Summer

- Begin dissertation research
- Prepare for IMSE Qualifying Examination (August):
  - Written document and oral presentation on research rotation
  - Oral examination on fundamentals from core courses

### Years 2 and Beyond

- Electives (discuss with PhD adviser)
- IMSE Graduate Seminar (IMSE 501)
- Doctoral Research (IMSE 600)
- Teaching requirements:
  - Attend two or more Teaching Center workshops
  - Complete 15 units of mentored teaching experience
- Regular meetings (at least once per year) with the faculty mentoring committee
- Dissertation proposal and presentation (fifth semester)
- Dissertation and oral defense

## Mechanical Engineering & Materials Science

The Department of Mechanical Engineering & Materials Science offers a **PhD** in either **Mechanical Engineering** or **Aerospace Engineering**. The department's research strengths include biomechanics, materials, energy, fluid mechanics and rotary-wing aerodynamics. The doctoral student, with their adviser, designs the program of study and the research project. The dissertation is defended at the end of the research effort. A typical time to PhD after an undergraduate engineering degree is four to five years, but the length of the program may vary depending on the individual and the area of study.

Contact: Prof. Jessica Wagenseil  
Email: [jessica.wagenseil@wustl.edu](mailto:jessica.wagenseil@wustl.edu)  
Website: <https://mems.wustl.edu/graduate/programs>

## Faculty

### Chair

**Philip V. Bayly** (<https://engineering.wustl.edu/faculty/Philip-Bayly.html>)

The Lee Hunter Distinguished Professor of Mechanical Engineering  
PhD, Duke University  
Nonlinear dynamics, vibrations, biomechanics



## Associate Chairs

**Katharine M. Flores (Materials Science)** (<https://engineering.wustl.edu/faculty/Katharine-Flores.html>)

PhD, Stanford University

Mechanical behavior of structural materials

**David A. Peters (Mechanical Engineering)** (<https://engineering.wustl.edu/faculty/David-Peters.html>)

McDonnell Douglas Professor of Engineering

PhD, Stanford University

Aeroelasticity, vibrations, helicopter dynamics, aerodynamics

## Endowed Professors

**Ramesh K. Agarwal** (<https://engineering.wustl.edu/faculty/Ramesh-Agarwal.html>)

William Palm Professor of Engineering

PhD, Stanford University

Computational fluid dynamics, computational physics

**Guy M. Genin** (<https://engineering.wustl.edu/faculty/Guy-Genin.html>)

Harold & Kathleen Faught Professor of Mechanical Engineering

PhD, Harvard University

Solid mechanics, fracture mechanics

**Mark J. Jakiela** (<https://engineering.wustl.edu/faculty/Mark-Jakiela.html>)

Lee Hunter Professor of Mechanical Design

PhD, University of Michigan

Mechanical design, design for manufacturing, optimization, evolutionary computation

**Shankar M.L. Sastry** (<https://engineering.wustl.edu/faculty/Shankar-Sastry.html>)

Christopher I. Byrnes Professor of Engineering

PhD, University of Toronto

Materials science, physical metallurgy

**Srikanth Singamaneni** (<https://engineering.wustl.edu/faculty/Srikanth-Singamaneni.html>)

Lilyan and E. Lisle Hughes Professor of Mechanical Engineering

PhD, Georgia Institute of Technology

Microstructures of cross-linked polymers

## Professor

**Jianjun Guan** (<https://engineering.wustl.edu/faculty/Jianjun-Guan.html>)

PhD, Zhejiang University

Biomimetic biomaterials synthesis, scaffold fabrication

## Associate Professors

**Spencer P. Lake** (<https://engineering.wustl.edu/faculty/Spencer-Lake.html>)

PhD, University of Pennsylvania

Soft-tissue biomechanics

**Amit Pathak** (<https://engineering.wustl.edu/faculty/Amit-Pathak.html>)

PhD, University of California, Santa Barbara

Cellular biomechanics

**Jessica E. Wagenseil** (<https://engineering.wustl.edu/faculty/Jessica-Wagenseil.html>)

DSc, Washington University

Arterial biomechanics

## Assistant Professors

**Damena D. Agonafer** (<https://engineering.wustl.edu/faculty/Damena-Agonafer.html>)

PhD, University of Illinois at Urbana-Champaign

Computational fluid dynamics, computational physics

**Matthew R. Bersi** (<https://engineering.wustl.edu/faculty/Matthew-Bersi.html>)

PhD, Yale University

Biomedical engineering

**Sang-Hoon Bae**

PhD, University of California Los Angeles

Materials growth, optoelectronics, renewable energy

**J. Mark Meacham** (<https://engineering.wustl.edu/faculty/Mark-Meacham.html>)

PhD, Georgia Institute of Technology

Micro-/nanotechnologies for thermal systems and the life sciences

**Rohan Mishra** (<https://engineering.wustl.edu/faculty/Rohan-Mishra.html>)

PhD, Ohio State University

Computational materials science

**Patricia B. Weisensee** (<https://engineering.wustl.edu/faculty/Patricia-Weisensee.html>)

PhD, University of Illinois at Urbana-Champaign

Thermal fluids

## Professor of the Practice

**Swami Karunamoorthy** (<https://engineering.wustl.edu/faculty/Swami-Karunamoorthy.html>)

DSc, Washington University

Helicopter dynamics, engineering education

## Teaching Professors

**Emily J. Boyd** (<https://engineering.wustl.edu/faculty/Emily-Boyd.html>)

PhD, University of Texas at Austin

Thermofluids

**Ruth J. Okamoto** (<https://engineering.wustl.edu/faculty/Ruth-Okamoto.html>)

DSc, Washington University

Biomechanics, solid mechanics

## Joint Faculty

**Richard L. Axelbaum (Energy, Environmental & Chemical Engineering)** (<https://engineering.wustl.edu/faculty/Richard-Axelbaum.html>)

Stifel & Quinette Jens Professor of Environmental Engineering Science

PhD, University of California, Davis  
Combustion, nanomaterials

**Elliot L. Elson (Biochemistry & Molecular Biophysics)** ([http://dbbs.wustl.edu/faculty/Pages/faculty\\_bio.aspx?SID=188](http://dbbs.wustl.edu/faculty/Pages/faculty_bio.aspx?SID=188))

Professor Emeritus of Biochemistry & Molecular Biophysics  
PhD, Stanford University  
Biochemistry, molecular biophysics

**Michael D. Harris (Physical Therapy, Orthopaedic Surgery, and Mechanical Engineering & Materials Science)** (<https://pt.wustl.edu/people/michael-d-harris-phd/>)

PhD, University of Utah  
Whole body and joint-level orthopaedic biomechanics

**Kenneth F. Kelton (Physics)** (<https://physics.wustl.edu/people/kenneth-f-kelton/>)

Arthur Holly Compton Professor of Arts & Sciences  
PhD, Harvard University  
Study and production of titanium-based quasicrystals and related phases

**Eric C. Leuthardt (Neurological Surgery and Biomedical Engineering)** (<http://www.neurosurgery.wustl.edu/patient-care/find-a-physician/clinical-faculty/eric-c-leuthardt-md-250/>)

MD, University of Pennsylvania School of Medicine  
Neurological surgery

**Lori Setton (Biomedical Engineering)** (<https://engineering.wustl.edu/faculty/Lori-Setton.html>)

Lucy and Stanley Lopata Distinguished Professor of Biomedical Engineering  
PhD, Columbia University  
Biomechanics for local drug delivery, tissue regeneration specific to the knee joints and spine

**Matthew J. Silva (Orthopaedic Surgery)** (<http://www.orthoresearch.wustl.edu/content/Laboratories/2963/Matthew-Silva/Silva-Lab/Overview.aspx>)

Julia and Walter R. Peterson Orthopaedic Research Professor  
PhD, Massachusetts Institute of Technology  
Biomechanics of age-related fractures and osteoporosis

**Simon Tang (Orthopaedic Surgery and Biomedical Engineering)** (<http://www.orthoresearch.wustl.edu/content/Laboratories/3043/Simon-Tang/Tang-Lab/Overview.aspx>)

PhD, Rensselaer Polytechnic Institute  
Biological mechanisms

## Senior Professors

**Phillip L. Gould**

PhD, Northwestern University  
Structural analysis and design, shell analysis and design, biomechanical engineering

**Kenneth L. Jerina** (<https://engineering.wustl.edu/faculty/Ken-Jerina.html>)

DSc, Washington University  
Materials, design, solid mechanics, fatigue, fracture

**Salvatore P. Sutera**

PhD, California Institute of Technology  
Viscous flow, biorheology

**Barna A. Szabo**

PhD, State University of New York at Buffalo  
Numerical simulation of mechanical systems, finite-element methods

## Lecturers

**Sharniece Holland** (<https://engineering.wustl.edu/faculty/Sharniece-Holland.html>)

PhD, University of Alabama  
Additive manufacturing, mathematics

**Jeffery Krampf** (<https://engineering.wustl.edu/faculty/Jeff-Krampf.html>)

MS, Washington University  
Fluid mechanics, modeling, design

**J. Jackson Potter** (<https://engineering.wustl.edu/faculty/Jackson-Potter.html>)

PhD, Georgia Institute of Technology  
Senior design

**H. Shaun Sellers** (<https://engineering.wustl.edu/faculty/Sh Shaun-Sellers.html>)

PhD, Johns Hopkins University  
Mechanics, materials

**Louis G. Woodhams** (<https://engineering.wustl.edu/faculty/Louis-Woodhams.html>)

BS, University of Missouri–St. Louis  
Computer-aided design

## Adjunct Instructors

**Ricardo L. Actis**

DSc, Washington University  
Finite element analysis, numerical simulation, aircraft structures

**Robert G. Becnel**

MS, Washington University  
FE review

**Harold Brandon**

DSc, Washington University  
Energetics, thermal systems

**Andrew W. Cary**

PhD, University of Michigan  
Computational fluid dynamics

**Dan E. Driemeyer**

PhD, University of Illinois  
Thermoscience

**Richard S. Dyer**

PhD, Washington University  
Propulsion, thermodynamics, fluids

**Timothy W. Jackson**

PhD, University of Washington  
Structural analysis, dynamics

**Richard R. Janis**

MS, Washington University  
Building environmental systems

**Gary D. Renieri**

PhD, Virginia Polytechnic Institute and State University  
Structural applications, composite materials

**Krishnan K. Sankaran**

PhD, Massachusetts Institute of Technology  
Metallic materials

**Michael C. Wendl**

DSc, Washington University  
Mathematical theory, computational methods in biology and engineering

## Laboratory and Design Specialist

**Chiamaka Asinugo (<https://engineering.wustl.edu/faculty/Chiamaka-Asinugo.html>)**

MS, Washington University  
Mechanical engineering design

## Professor Emeritus

**Wallace B. Diboll Jr.**

MSME, Rensselaer Polytechnic Institute  
Dynamics, vibrations, engineering design

## Degree Requirements

### PhD in Mechanical Engineering or Aerospace Engineering

#### Policies & Regulations

A key objective of the doctoral program is to promote cutting-edge multidisciplinary research and education in the areas of mechanical engineering and materials science. Students are selected for admission to the program by a competitive process, and they typically start in the fall semester. On arriving

at Washington University in St. Louis, the student will be advised by the temporary adviser on all procedural issues. The student will choose a permanent adviser by the end of the first year of residency in the program.

## Summary of Requirements for Doctoral Students

The following is a brief summary of the requirements for students in the Mechanical Engineering & Materials Science doctoral programs:

1. Pass the qualifying exams. Qualifying exams should be taken by the end of the first year.
2. Prepare and defend a research proposal. The research proposal should be defended by the end of the third year.
3. Write and successfully defend the doctoral dissertation.
4. Complete a minimum of 36 units of course credit and a minimum of 24 units of doctoral research; a total of 72 credit units is required to earn the PhD degree.
5. Satisfy the applicable teaching requirements of the Graduate School.

## Degrees Offered

The Department of Mechanical Engineering & Materials Science (MEMS) offers the following doctoral degrees:

- PhD in Mechanical Engineering
- PhD in Aerospace Engineering
- DSc in Mechanical Engineering, Aerospace Engineering, or Materials Science

The Doctor of Science (DSc) has similar requirements to the PhD but without the teaching requirement. For a list of differences, please refer to the DSc and PhD Comparison (PDF) (<http://bulletin.wustl.edu/grad/gsas/mems/Doctoral-Comparison-Section.pdf>).

- Students may also pursue a PhD in Materials Science — through the Institute of Materials Science & Engineering (IMSE) — while working with professors from the Department of Mechanical Engineering & Materials Science. For details about this program, visit the IMSE Graduate Program (<http://imse.wustl.edu/graduate-program/>) webpage.

For more information about MEMS PhD degrees, visit the MEMS Graduate Degree Programs (<https://mems.wustl.edu/graduate/programs/Pages/default.aspx>) webpage.

## English

The Department of English offers the degrees of **Master of Arts (AM) and Doctor of Philosophy (PhD) in English and American Literature** and **Doctor of Philosophy (PhD) in English and Comparative Literature**. Candidates for admission apply to the PhD program; we do not accept students for a terminal AM. The PhD is a six-year program.

The graduate program in English and American literature at Washington University in St. Louis is innovative, approachably sized and generously funded, with all incoming students receiving full tuition scholarships plus university fellowships. Our faculty includes Guggenheim Fellows, winners of the National Book Critics Circle Award and members of the American Academy of Arts and Sciences. As a participant in the Carnegie Initiative on the Doctorate, we exemplify an integrated community of scholars and writers, and we are home to one of the top ten MFA programs in the United States. We sponsor multiple reading groups, regular faculty and student colloquia, and an extensive lecture series. The Hurst Visiting Professorship brings eight or more distinguished creative and critical voices to the department each year. Recent Hurst Professors have included Jerome McGann, Jed Esty, Charles Altieri, Carla Kaplan, Michael Wood, James Longenbach, Peter Coviello, Daniel Vitkus, Rita Felski and Rita Copeland. These professors present public talks, and they also lead small workshops open only to graduate students.

Our program is rooted in the materials of literary history, from medieval to post-postmodern times, and we embrace the importance of interdisciplinarity. We believe that intellectual community is fostered by concrete working relationships between professors and students, and we offer collaborative teaching opportunities with experienced faculty. Graduate students in good standing can expect six years of full funding in all.

Contact: Tegan Von Neupert  
Phone: 314-935-5190  
Email: [tegan.v@wustl.edu](mailto:tegan.v@wustl.edu)  
Website: <http://english.artsci.wustl.edu/graduate>

## Faculty

### Chair

**Vincent Sherry** (<https://english.wustl.edu/people/vincent-sherry/>)

Howard Nemerov Professor in the Humanities  
PhD, University of Toronto

### Endowed Professors

**Gerald L. Early** (<https://english.wustl.edu/people/gerald-early/>)

Merle Kling Professor of Modern Letters  
PhD, Cornell University

**Stephanie Li** (<https://english.wustl.edu/people/stephanie-li/>)

Lynne Cooper Harvey Distinguished Professor  
PhD, Cornell University

**Gary Wihl** (<https://english.wustl.edu/people/gary-wihl/>)

Hortense & Tobias Lewin Distinguished Professor in the Humanities  
PhD, Yale University

**Steven Zwicker** (<https://english.wustl.edu/people/steven-zwicker/>)

Stanley Elkin Professor in the Humanities  
PhD, Brown University

### Professors

**Mary Jo Bang** (<https://english.wustl.edu/people/mary-jo-bang/>)

MFA, Columbia University

**David Lawton** (<https://english.wustl.edu/people/david-lawton/>)

FAAH, PhD, University of York

**Joseph Loewenstein** (<https://english.wustl.edu/people/joe-loewenstein/>)

PhD, Yale University

**William J. Maxwell** (<https://english.wustl.edu/people/william-j-maxwell/>)

PhD, Duke University

**Robert Milder** (<https://english.wustl.edu/people/robert-milder/>)

PhD, Harvard University

**Anca Parvulescu** (<https://english.wustl.edu/people/anca-parvulescu/>)

PhD, University of Minnesota

**Carl Phillips** (<https://english.wustl.edu/people/carl-phillips/>)

MA, Boston University

**Vivian Pollak** (<https://english.wustl.edu/people/vivian-pollak/>)

PhD, Brandeis University

**Wolfram Schmidgen** (<https://english.wustl.edu/people/wolfram-schmidgen/>)

PhD, University of Chicago

**Rafia Zafar** (<https://english.wustl.edu/people/rafia-zafar/>)

PhD, Harvard University

## Associate Professors

**Guinn Batten** (<https://english.wustl.edu/people/guinn-batten/>)

PhD, Duke University

**J. Dillon Brown** (<https://english.wustl.edu/people/j-dillon-brown/>)

PhD, University of Pennsylvania

**Danielle Dutton** (<https://english.wustl.edu/people/danielle-dutton/>)

PhD, University of Denver

**William McKelvy** (<https://english.wustl.edu/people/william-mckelvy/>)

PhD, University of Virginia

**Edward McPherson** (<https://english.wustl.edu/people/edward-mcpherson/>)

MFA, University of Minnesota–Twin Cities

**Steven Meyer** (<https://english.wustl.edu/people/steven-meyer/>)

PhD, Yale University

**Melanie Micir** (<https://english.wustl.edu/people/melanie-micir/>)

PhD, University of Pennsylvania

**Jessica Rosenfeld** (<https://english.wustl.edu/people/jessica-rosenfeld/>)

PhD, University of Pennsylvania

**Abram Van Engen** (<https://english.wustl.edu/people/abram-van-engen/>)

PhD, Northwestern University

**Julia Walker** (<https://english.wustl.edu/people/julia-walker/>)

PhD, Duke University

## Assistant Professors

**Anupam Basu** (<https://english.wustl.edu/people/anupam-basu/>)

PhD, University of Wisconsin–Madison

**Chris Eng** (<https://english.wustl.edu/people/chris-eng/>)

PhD, City University of New York

## Senior Lecturers

**Jennifer Arch** (<https://english.wustl.edu/people/jennifer-arch/>)

PhD, Washington University

**Bethany Daniels** (<https://english.wustl.edu/people/bethany-daniels/>)

MA, University of Missouri–St. Louis

**Erin Finneran** (<https://english.wustl.edu/people/erin-finneran/>)

PhD, Washington University

**Amy Pawl** (<https://english.wustl.edu/people/amy-pawl/>)

PhD, University of California, Berkeley

**Stephanie Pippin** (<https://english.wustl.edu/people/stephanie-pippin/>)

MFA, Washington University

**Martin Riker** (<https://english.wustl.edu/people/martin-riker/>)

PhD, University of Denver

## Writers-in-Residence

**Kathryn Davis** (<https://english.wustl.edu/people/kathryn-davis/>)

BA, Goddard University

**Kathleen Finneran** (<https://english.wustl.edu/people/kathleen-finneran/>)

BA, Washington University

**Marshall Klimasewski** (<https://english.wustl.edu/people/marshall-klimasewski/>)

MFA, Bowling Green State University

**Aditi Machado**

MFA, Washington University

## Director of Creative Writing Program

**David Schuman** (<https://english.wustl.edu/people/david-schuman/>)

MFA, Washington University

## Professors Emeriti

**Miriam Bailin**

PhD, University of California, Berkeley

**Wayne Fields**

Lynne Cooper Harvey Chair Emeritus in English

PhD, University of Chicago

**Naomi Lebowitz** (<https://complit.wustl.edu/people/naomi-lebowitz/>)

PhD, Washington University

**Carter C. Revard**

PhD, Yale University

**Richard Ruland**

PhD, University of Michigan

**Daniel Shea**

PhD, Stanford University

## Degree Requirements

### PhD in English and American Literature or English and Comparative Literature

The AM/PhD program in English at Washington University in St. Louis is a six-year course of study leading to a doctorate in English and American Literature or in English and Comparative Literature. All English graduate students take a minimum of 12 elective 3-credit courses at the 400 or 500 level, along with two compulsory classes: Introduction to Graduate Study and Practicum in the Teaching of Composition. Aside from these two classes, there are no specific course requirements, although students must take at least two courses in historical periods before 1780 (not in the same period) and at least two in historical periods after 1780 (again, not in the same period).

For students entering in the fall semester of 2014 and after, at least six of the 12 elective courses must be 500-level, graduate-only seminars; four such 500-level seminars must be taken by students who entered in the fall of 2013 or before. Students are encouraged to enroll in courses of special interest in other departments or programs, whether or not they are cross-listed with the English department; however, at least eight of their 12 electives must be home-based English courses, including (save in exceptional cases) at least six of their seminars.

The English department requires a minimum of competency in one foreign language, ancient or modern, for all doctoral candidates. "Competency" is understood as a basic comprehension of the grammar, structure and core vocabulary of a language. Native speakers of another language or students who have had two full years of undergraduate language study with a grade average of B+ or better will be considered to have satisfied the competency requirement. Other students may demonstrate competency either by taking an introductory reading course designed for graduate students or by passing a translation exam administered by the appropriate language department.

It is assumed that all entering graduate students are aiming for the PhD; the English department does not admit students aiming for a terminal AM degree. The AM is awarded during the course of study when a student has completed 36 credit units, usually at the end of the second year. To satisfy the Graduate School requirement of demonstrated excellence, candidates for the AM may also be asked to submit a graded seminar essay (or the equivalent) for review by the English Graduate Committee.

Students entering the program with a master's degree in hand normally follow the standard first-year curriculum. At the end of their third semester, the director of graduate studies will review their AM credits taken elsewhere and determine how many credits (normally a limit of 9-12) may be applied toward the PhD at Washington University. Although students receiving transfer

credit may be able to complete the PhD in fewer than six years, it is to their advantage to enter the program as first-year students, since this ensures them four full semesters of study without teaching responsibilities. If, after three semesters and the review of transfer credit, the director of graduate studies determines that the student has fulfilled the course requirements for the PhD, the student may elect not to take classes in semester four and instead to begin major field reading instead; their 6 credits of major field preparation during semester four will complete the requirements for the Washington University AM degree.

Students who wish to receive the combined PhD degree in English and Comparative Literature (<https://english.wustl.edu/phd-requirements/#anchor-group-10759>) may do so by fulfilling the English department's requirements for combined degrees. More information about the combined degree may be found on the departmental website.

During the first seven semesters, credits are earned by taking courses, independent study and directed reading. More precisely, students complete 13 courses (39 credits) total across years one and two; the Practicum in Teaching (3 credits) in the fall of year three; 6 credits of directed reading in the spring of year three; and 6 credits of directed reading in the fall of year four.

## Film and Media Studies

The program in Film and Media Studies (FMS) provides students who are interested in the history, criticism and theories of moving-image-based visual culture from the 19th through the 21st centuries an opportunity to extend their formal intellectual development and to explore film and electronic media as evolving global phenomena. The **certificate** and the **master's degree in FMS** advance a student's scholarly understanding of all forms of the moving image and their artistic, cultural, industrial, philosophical, political and social implications.

The certificate is by application and is open to PhD students in other academic units. It consists of 15 course units in FMS; 6 units of the certificate may be counted in the student's PhD requirements. The master's degree emphasizes multiple approaches of academic study that may lead to curating, researching, teaching and other professional activities centered on film and other moving image media.

Students already enrolled at Washington University with a major in FMS may wish to consider the master's program as part of an accelerated AB/AM option. Washington University students who are admitted in the combined AB/AM program may have up to 9 units of FMS course credit at the 400 level considered for application to the Master of Arts (AM) degree requirements. Students who are currently enrolled as undergraduates at Washington University and who are seeking the combined AB/AM degree should use the standard application form of the Graduate School to apply.

Students applying to the FMS master's program from outside of the university should follow the standard application procedures of the Graduate School (available on the Graduate School Forms (<https://graduateschool.wustl.edu/forms/>) webpage). Graduate Record Exam scores that indicate an aptitude for graduate study are required, and applicants will also need to supply strong letters of recommendation from three instructors who can speak to the applicant's academic skills relevant to graduate study in FMS. Applicants who have completed an undergraduate degree and who show outstanding promise in writing about film and media but who do not have a formal background in film/media studies may also be admitted. All applicants to the master's program in FMS should have a strong academic foundation in critical writing and thinking. At least one writing sample of no less than 3,000 words is required, and the applicant must also compose a letter of approximately 500 words describing their interest in FMS and how their intellectual background has prepared them for graduate study in FMS.

All applicants to the certificate, AB/AM, and master's degree programs in FMS are welcome to consult with the director of graduate studies about the application process.

Phone: 314-935-4056  
Email: [gstudlar@wustl.edu](mailto:gstudlar@wustl.edu)  
Website: <http://fms.artsci.wustl.edu/grad-programs>

## Faculty

### Director

**Ian Bogost** (<https://fms.wustl.edu/people/ian-bogost/>)  
PhD, University of California, Los Angeles

### Endowed Professor

**Gaylyn Studlar** (<http://fms.artsci.wustl.edu/people/gaylyn-studlar/>)  
David May Distinguished Professor in the Humanities  
PhD, University of Southern California

### Associate Professors

**Colin Burnett** (<http://fms.artsci.wustl.edu/people/colin-burnett/>)  
PhD, University of Wisconsin-Madison

**Diane Wei Lewis** (<http://fms.artsci.wustl.edu/people/diane-wei-lewis/>)  
PhD, University of Chicago

### Assistant Professors

**Jianqing Chen** (<https://fms.wustl.edu/people/jianqing-chen/>)  
PhD, University of California, Berkeley

**Reem Hilu** (<http://fms.artsci.wustl.edu/people/reem-hilu/>)  
PhD, Northwestern University

**Raven Maragh-Lloyd** (<https://fms.wustl.edu/people/raven-maragh-lloyd/>)  
PhD, University of Iowa

**John Powers** (<https://fms.wustl.edu/people/john-powers/>)  
PhD, University of Wisconsin-Madison

### Senior Lecturer

**Richard Chapman** (<http://fms.artsci.wustl.edu/people/richard-chapman/>)

### Lecturers

**James Fleury** (<https://artsci.wustl.edu/faculty-staff/james-fleury/>)  
PhD, University of California, Los Angeles

**Brendan Leahy** (<https://fms.wustl.edu/people/brendan-leahy/>)  
MFA, Minneapolis College of Art and Design

### Emeritus Professor

**William Paul** (<http://fms.artsci.wustl.edu/people/william-paul/>)  
PhD, Columbia University

## Degree Requirements

### Graduate Certificate in Film and Media Studies

Required courses for the graduate certificate: 15 units

#### Core Courses (9 units):

- Film 501 Advanced Moving Image Analysis and Criticism (3 units)
- Film 421 Film Historiography (3 units) or Film 502 Seminar in History of Film and/or Electronic Media (rotating topics) (3 units)

One of the following theory courses is required as part of the core:

- Film 419 Theories of Mass Media (3 units)
- Film 420 Film Theory (3 units)
- Film 450 American Film Genres (3 units) (genre theory)
- Any 400- or 500-level course in film or electronic media theory

Certificate students also have two electives (6 units) that may be taken at the 400 or 500 level and developed in an advising plan, subject to the approval of the Film and Media Studies (FMS) adviser and of the director of graduate studies (DGS) of the student's home unit.

## Two Electives (6 units):

Each 3-unit elective course in FMS must be at the 400 level or higher.

Electives may be courses that originate in FMS, that are cross-listed with FMS, or that are offered in another unit and approved by the student's FMS adviser.

A student may choose to take one independent study of 3 units (Film 500) with an FMS faculty member as an elective. This study should relate to a specialized topic mutually agreed upon by the student, their FMS adviser, and the chair of the graduate certificate program. Although students are expected to benefit from elective courses offered by FMS core and affiliated faculty, they may take other film-related courses offered by other departments and by faculty not affiliated with FMS. To be included in the graduate certificate courses, classes that fall within this category require approval by the student's adviser in FMS and their home unit's DGS.

## Master of Arts in Film and Media Studies

### Course of Study

Students must fulfill the basic requirements for the Master of Arts (AM) degree (p. 23) as set forth in this Graduate School *Bulletin*. In addition, AM candidates must take the course of study described below, which consists of 36 units of credit and a comprehensive examination.

There is one course of study for the AM in FMS. There is no thesis option for this degree. Students complete 36 semester units (12 courses) defined by the three areas listed below. During their final semester of courses, students complete a comprehensive written examination and meet with the examining committee for an oral defense. The examining committee will consist of the DGS, the student's adviser, and one other faculty member who is either core or affiliated with FMS. These exams are based on reading and screening lists as well as on courses. The student must meet expectations for broad knowledge of the field appropriate for a master's degree student in the humanities. Normally, if the student expects a May graduation date, then they must complete the examinations by April 7 of the spring semester. All courses should be completed by the end of the semester in which the examination is scheduled.

Students should consult with the DGS during their first semester in the program to obtain the master's students' reading and screening list, and they should also consult regularly with their advisers. Students entering the program from outside the university should expect to take two years to finish the master's degree if they take 9 units per semester; it may take less time if they take more units per semester.

## Area I: Required Courses (15 units total)

The requirements for Area I may be fulfilled through the following courses:

- **Visual Analysis**  
Film 501 Advanced Moving Image Analysis and Criticism
- **Moving Image Theory**  
Film 419 Theories of Mass Media **or** Film 420 Film Theory **or** Film 502 Seminar in Film and Media Theory (rotating topics)
- **Historiography of the Moving Image**  
Film 421 Film Historiography **or** Film 423 Histories of Media Convergence
- **Television & Digital Studies**  
Film 503 Seminar in Television Studies (rotating topics) **or** Film 504 Seminar in Digital Studies (rotating topics) **or** any 400- or 500-level FMS course in television or electronic media
- **Cinema and Television Beyond the United States**  
Any 400- or 500-level national, regional or transnational cinema or television studies course offered in FMS

## Area II: Electives (18 units)

In addition, during their matriculation, students must take 18 units of credit at the 400 or 500 level to satisfy electives for the master's in FMS. When choosing electives, students may select any 400- or 500-level FMS course not used to fulfill the requirements of Area I. In addition, students can select up to 6 units of Film 500 Independent Study, which involves study in an area of film and media that is not ordinarily covered by regular course offerings. Any instance of Film 500 must be approved by the DGS. Six units of courses at the 400 or 500 level offered through other departments or programs that are relevant to the degree's intellectual focus may also be taken to satisfy this area with the permission of the DGS.

## Area III: Practicum in Film and Media Studies

Students must complete one course (3 units) that consists of professional experience that brings to bear academic knowledge and skills associated with the study of FMS. Every student presents a written proposal/plan to the DGS and to the faculty mentor/adviser they select for their practicum. Both faculty must approve the plan.

The practicum may take a number of forms, but in every case, the experience must be planned in a way that contributes to the student's professional development. It might consist of curating films for a screening or mini-festival accompanied by screening notes, a website, or other forms of writing that enhance the academic value of the event. The student might organize a scholarly symposium or lecture to further the understanding of a particular aspect of the moving image at Washington University. The practicum may also consist of archival or curatorial work in



film, television or other forms of the moving image (e.g., digital art) at an archive, a museum or another nonprofit organization (e.g., a film festival) where the student will have an on-site supervisor.

Students interested in combining primary research with their development as a "public intellectual" might write a book proposal and develop a bibliography in anticipation of writing a book. Alternatively, they may develop a website with consistent and significant critical, historical or theoretical usefulness to those interested in film and media studies, such as one that offers critical analyses of current films or bibliographic information addressing one area of research in the field. The practicum student might participate in other activities related to moving image exhibition, archival preservation or grant application writing. The practicum may also be oriented toward teaching, with the creation of a course syllabus and sample lectures delivered by the graduate student in a venue organized by faculty.

Students may initiate other projects, but any practicum requires a faculty mentor and, in circumstances in which there is a collaborating organization, a letter of endorsement of the practicum from the student's on-site supervisor at the organization. This supervisor will also provide a letter upon completion of the practicum detailing the student's work and its quality. The faculty adviser will award the grade for the practicum.

## Germanic Languages and Literatures

The Department of Germanic Languages and Literatures offers a comprehensive program in the language, literature and culture — past and present — of Germany and German-speaking countries. Our faculty pursue a multiplicity of approaches in their research and offer seminars (<https://german.wustl.edu/recent-seminars/>) that provide a healthy balance of theory and the history of German literature and culture. The department offers numerous opportunities for interdisciplinary study (<https://german.wustl.edu/interdisciplinary-certificates/>), including a one-of-a-kind joint PhD program with Comparative Literature (p. 55) and an innovative certificate program that gives students the option of developing an expertise in one of seven associated fields.

Both faculty and students teach and do research in a wide range of related disciplines, including art history; comparative literature; digital humanities; European studies; film and media studies; higher education administration; Jewish studies; Medieval and Renaissance studies; religious studies; and women, gender, and sexuality studies.

We consider international exchange to be a crucial component of graduate education. We maintain an exchange agreement on all levels (faculty, graduate and undergraduate) with the University of Tübingen, in addition to a graduate student exchange with

the University of Cologne. These arrangements enable us to guarantee a year abroad for all of our PhD candidates. At the same time, they enrich our program by bringing German exchange students to campus to study and teach alongside the full-time students in our program. Exchange is further facilitated by the Max Kade Center (<http://german.wustl.edu/max-kade-center/>), which, in addition to numerous other activities, plays host each spring to a writer- and a critic-in-residence. The department also invites a distinguished visiting professor to campus every other year.

Departmental faculty are known across campus and across the discipline for their close mentoring of graduate students, who are integrated into the department through their participation in numerous activities, from the graduate student symposium and the department's biennial international symposium (<https://german.wustl.edu/biennial-symposium/>) to outreach programs like German Day (<http://german.wustl.edu/events/german-day/>). We also give close attention to instructor development through our unique pedagogy internships, through recurring workshops, and through a classroom mentoring program that ensures that all assistants in instruction receive feedback and advice from a large number of faculty members. Graduate students have the opportunity to teach in our undergraduate German program at all levels, in both German and English, and many also have a chance to teach courses or sections in other programs.

The combination of our extremely competitive funding packages and the low cost of living in St. Louis ensures that students have the resources they need to stay focused on their academic work. As a consequence, our graduate students not only produce first-rate dissertations (<https://german.wustl.edu/recent-dissertations/>), they also go on to accept positions at top universities and liberal arts colleges across the country.

Their success is facilitated by the outstanding research collections available at the Washington University library (<http://library.wustl.edu/>), including the Mike Lützel Contemporary German Literature Collection (<https://libguides.wustl.edu/contemporarygermanliteraturecollection/>) and the Suhrkamp/Insel Collection (<http://libguides.wustl.edu/c.php?g=47129&p=302734>). Other resources include the Gontard Collection (18th to 20th centuries) in the Rare Book Collection of Olin Library, the internationally famous Reformation Collection at Concordia Seminary, and the Vatican Manuscript Collection at Saint Louis University. The Saint Louis Art Museum (<http://www.slam.org/>) and the Washington University Mildred Lane Kemper Art Museum (<http://kemperartmuseum.wustl.edu/>) have extensive holdings in German expressionist and contemporary art.

For questions about the graduate application process (<https://german.wustl.edu/graduate-application-and-admissions/>), please contact our administrative coordinator (<https://german.wustl.edu/people/cecily-stewart-hawksworth/>), Cecily Stewart Hawksworth.

Contact: Cecily Stewart Hawksworth  
Phone: 314-935-4276  
Email: cecilyhawksworth@wustl.edu  
Website: <http://german.wustl.edu/graduate>

## Faculty

### Chairs

**Matt Erlin** (<https://german.wustl.edu/people/matt-erlin/>) (*July 1, 2021 through December 31, 2021*)

Professor of German  
PhD, University of California, Berkeley  
18th- & 19th-century German literature; intellectual history; digital humanities; material culture

**Lynne Tatlock** (<https://german.wustl.edu/people/lynne-tatlock/>) (*Beginning January 1, 2022*)

Hortense and Tobias Lewin Distinguished Professor in the Humanities  
Director, Comparative Literature  
PhD, Indiana University  
17th-, 19th- & 20th-century novel and book history; gender; nationalism; translation

### Endowed Professors

**Paul Michael Lützel** (<https://german.wustl.edu/people/paul-michael-lutzeler/>)

Rosa May Distinguished University Professor in the Humanities  
Director of the Max Kade Center  
PhD, Indiana University  
Contemporary and exile literature; Romanticism; literary discourses on Europe

**Gerhild Williams** (<https://german.wustl.edu/people/gerhild-williams/>)

Barbara Schaps Thomas and David M. Thomas Professor in the Humanities  
PhD in Comparative Literature, University of Washington  
Early modern German and French literature and culture; demonology; Ottoman Eurasia

### Professor

**Erin McGlothlin** (<https://german.wustl.edu/people/erin-mcglathlin/>)

Vice Dean of Undergraduate Affairs  
PhD, University of Virginia  
Contemporary literature; Holocaust studies; Jewish studies; narrative theory

### Associate Professors

**Kurt Beals** (<https://german.wustl.edu/people/kurt-beals/>)

PhD, University of California, Berkeley  
20th- and 21st-century German literature and media; poetry; translation; experimentalism; digital media

**Caroline Kita** (<https://german.wustl.edu/people/caroline-kita/>)

PhD, Duke University  
Austrian literature; Jewish studies; music and sound studies; theater

### Assistant Professor

**André Fischer** (<https://german.wustl.edu/people/andre-fischer/>)

PhD, Stanford University  
20th- and 21st-century German literature; German cinema; myth-making; aesthetics and politics

### Lecturer and Foreign Language Pedagogy Specialist

**Mary Allison** (<https://german.wustl.edu/people/mary-allison/>)

PhD, University of Wisconsin-Madison  
Historical sociolinguistics; Germanic linguistics; second language acquisition and pedagogy

### Lecturer

**Carol Jenkins** (<https://german.wustl.edu/people/carol-jenkins/>)

PhD, Washington University in St. Louis  
The history of reception; Weimar, Germany; literature & society; foreign language pedagogy

### Professor Emeritus

**James Fitzgerald Poag** (<https://german.wustl.edu/people/james-fitzgerald-poag/>)

PhD, University of Illinois  
Early and high Middle Ages; history of the German language; medieval Bible exegesis; medieval law and literature; medieval romance; middle high German; mysticism

## Degree Requirements

### Master of Arts (AM) in German and Higher Education Administration

The AM in German and Higher Education Administration (HEA) offers qualified students with a strong background in German the opportunity to combine advanced study of German language, literature and culture with courses in higher education administration. In its fusion of discipline-specific postgraduate study with practical career-oriented preparation in a rapidly growing area of higher education, the program enables students to develop new career paths while further expanding their knowledge of German language, literature and culture.

## Program Requirements

The AM requires 24 graduate-level course units in German language and culture and at least 12 units of higher education administration and other relevant courses in psychological and brain sciences, statistics, education, business, social work, nonprofit management and other disciplines. Courses will be supplemented by internships with academic and administrative units on the Washington University campus and with other higher education institutions in North America or the German-speaking world. During the final semester of courses, the student will complete a capstone project.

## Suggested Sequence of Courses

(actual course progression may follow a different schedule)

### Fall semester, 1st year:

- Two graduate-level German courses (6 units)
- One course in higher education administration or related areas (3 units)

### Spring semester, 1st year:

- Two graduate-level German courses (6 units)
- One course in higher education administration or related areas (3 units)
- Internship

### Fall semester, 2nd year:

- Two graduate-level German courses (6 units)
- One course in higher education administration or related areas (3 units)
- Internship

### Spring semester, 2nd year:

- Two graduate-level German courses (6 units)
- Capstone project (3 units)
- Internship

## HEA Electives

These electives must be chosen from an approved list of courses in psychological and brain sciences, statistics, education, business, social work, nonprofit management and other disciplines. At least one of the chosen electives must focus on management/leadership, financial management or legal issues in the field.

## Semester Internships

Students in the program intern in various units on campus, and this results in a total of three Washington University internship experiences over the course of the degree. These internships in units such as Student Affairs, Residential Life, Admissions, and the College of Arts & Sciences entail approximately 10 to 15 hours of mentored engagement per week.

## Capstone Project

During their last semester, each student produces an individual project (e.g., a research paper, a proposed initiative or program) under the guidance of a faculty member. Although this project does not have the same length or scope as a traditional AM thesis, it is considered a significant and meaningful capstone experience.

## PhD in Germanic Languages & Literatures

A summary of program requirements is provided below.

German students who are interested in our exchange programs should email Cecily Stewart Hawksworth (cecilyhawksworth@wustl.edu) for more information.

## Courses

The PhD requires 51 units of courses (including 36 AM credits) home-based in German. Students who complete interdisciplinary graduate certificates will be required to enroll in additional units as specified by the certificate-granting department or program. Students may not exceed 72 units of course credit.

Each student must take courses in the full range of German literature and culture, to be chosen in consultation with the director of graduate studies. The following courses are required (exceptions are only possible upon review by the faculty):

- German 453 Theories of Literary and Cultural Analysis (3 units)
- German 456 History of the German Language (3 units)
- German 457 Introduction to Linguistics and the Structure of German (3 units)
- German 5051 Introduction to the Teaching of German (1 unit; normally taken during the second semester of the first year of the program)
- German 5052 Teaching Practicum (1 unit)
- German 5053 Theory and Practice of Foreign Language Pedagogy (2 units)
- German 5061 Apprenticeship in the Teaching of Literature and Culture I (1 unit)
- German 5062 Apprenticeship in the Teaching of Literature and Culture II (1 unit)

In addition, students are required to take one additional course in German literature prior to 1700. This requirement must be completed in residence at Washington University.

These rules regarding required courses to be taken at Washington University apply to students joining the department with a bachelor's degree. Students entering with a master's degree may already have fulfilled some of these requirements.

The fulfillment of Washington University requirements with courses completed elsewhere should be discussed with the director of graduate studies, who will make a determination about transfer credits.

## Interdisciplinary Studies

Graduate students may wish to take courses in areas other than German. Of special interest are graduate offerings in art history; comparative literature; English; the digital humanities; film and media studies; higher education administration; history; music; philosophy; romance languages; and women, gender, and sexuality studies.

Students interested in completing one of our interdisciplinary certificates are generally required to complete additional seminars.

## Foreign Language Requirement

Students planning to work primarily on post-1700 materials must display reading proficiency in French. The requirement may be satisfied by examination or by enrolling in and successfully completing French 400 and French 401. Students are strongly encouraged to pursue reading knowledge in languages other than French if necessary to conduct particular research for their dissertation.

Students planning to work on pre-1700 materials must pass a reading exam in Latin. Reading knowledge of French is also strongly encouraged.

## Examinations

### Master's Examination

Students who enter with a bachelor's degree must complete an oral and written master's examination at the end of their second year. A student's performance on both the oral and written exams is one important element affecting the faculty's decision about whether the student will receive permission to proceed with their graduate studies.

### Qualifying Examinations and Dissertation Prospectus

Students taking qualifying exams should display general knowledge and understanding of the primary materials, historical contexts, scholarly questions and theoretical frameworks that are likely to drive their future dissertations. The qualifying exam is usually taken during the fourth year of study for students entering with a bachelor's degree and during the third year for students entering with a master's degree. The qualifying exam process consists of four phases:

1. **Phase 1:** development of a bibliography for the exams;
2. **Phase 2:** preparation for and completion of two exams, each of which consists of a written portion and an oral portion;
3. **Phase 3:** creation and defense of a dissertation prospectus; and

4. **Phase 4:** preparation and circulation of the dissertation abstract and filing of the Title, Scope and Procedure Form (the latter of which must be submitted to the Graduate School no later than at the end of the fourth year of graduate study).

For the **first exam**, the student is required to situate their primary materials and their author(s) in their respective historical contexts and periods, with specific points of emphasis to be determined together with the exam committee. The **second exam** serves to frame the student's primary materials in theoretical terms; it is meant to discuss in general terms the methodological approaches for the planned dissertation.

## Teaching

Doctoral candidates are required to complete a minimum of six semesters (or the equivalent) of mentored teaching experiences (MTEs) within the German department in order to be eligible for the degree; some students may have the opportunity to complete additional MTEs in other departments. Most of our students (particularly students who do not enter with an MA in German and with experience teaching German at the university level) will complete eight semesters of MTEs (the maximum allowable number) in order to prepare themselves for the rigorous demands of the job market in German.

For information beyond what is presented here, please contact our administrative coordinator, Cecily Stewart Hawksworth ([cecilyhawksworth@wustl.edu](mailto:cecilyhawksworth@wustl.edu)).

## History

The Department of History offers the **Doctor of Philosophy (PhD) in History**. Although the department offers any historical specialization covered by a tenured faculty member, it specializes in American political culture; the ideas, culture and society of Central Europe; early modern Europe; East Asia; international urban history; religion in the medieval Mediterranean world; slavery and freedom in national and transnational contexts in 17th- through 19th-century America; and human rights and social justice in the modern United States. These core fields draw on the expertise of substantial segments of the faculty and provide significant opportunities for innovative graduate study that bridges conventional historical fields and fosters interdisciplinary research.

The graduate program admits only a small number of graduate students each year to promote a close working relationship between students and faculty. We invite applications from mature and self-directed students with well-defined research interests. Our seminars are small and flexible, and we encourage students to develop creative, self-tailored programs of doctoral study. The history department funds most doctoral candidates for six years at highly competitive levels and is committed to providing additional financial resources to support advanced research.

Our graduates are accomplished professionals in academia, private high schools, nonprofits, business and the public sector.

Phone: 314-935-5450  
Email: [history@wustl.edu](mailto:history@wustl.edu)  
Website: <https://history.wustl.edu/graduate>

## Faculty

### Chair

**Corinna Treitel** (<https://history.wustl.edu/people/corinna-treitel/>)

PhD, Harvard University  
(Modern German History)

### Endowed Professors

**Daniel Bornstein** (<https://history.wustl.edu/people/daniel-bornstein/>)

Stella K. Darrow Professor of Catholic Studies  
PhD, University of Chicago  
(Medieval and Renaissance Europe)

**Peter J. Kastor** (<https://history.wustl.edu/people/peter-kastor/>)

Samuel K. Eddy Professor  
PhD, University of Virginia  
(The American Frontier and Early Republic)

**Hillel J. Kieval** (<https://history.wustl.edu/people/hillel-j-kieval/>)

Gloria M. Goldstein Professor of Jewish History and Thought  
PhD, Harvard University  
(Jewish History)

**Kenneth Ludmerer** (<https://history.wustl.edu/people/kenneth-ludmerer/>)

Mabel Dorn Reeder Distinguished Professor in the History of Medicine  
PhD, MD, Johns Hopkins University  
(Medical History)

### Professors

**Iver Bernstein** (<https://history.wustl.edu/people/iver-bernstein/>)

PhD, Yale University  
(U.S. History and the Civil War)

**Andrea S. Friedman** (<https://history.wustl.edu/people/andrea-friedman/>)

PhD, University of Wisconsin  
(U.S. Women's History)

**Tim Parsons** (<https://history.wustl.edu/people/timothy-parsons/>)

PhD, Johns Hopkins University  
(African Military History)

**Mark Pegg** (<https://history.wustl.edu/people/mark-gregory-pegg/>)

PhD, Princeton University  
(Medieval European History)

**Corinna Treitel** (<https://history.wustl.edu/people/corinna-treitel/>)

PhD, Harvard University  
(Modern German History)

### Associate Professors

**Cassie Adcock** (<https://history.wustl.edu/people/cassie-adcock/>)

Director of Undergraduate Studies  
PhD, University of Chicago  
(Modern South Asian History)

**Monique Bedasse** (<https://history.wustl.edu/people/monique-bedasse/>)

PhD, University of Miami  
(Caribbean History)

**Elizabeth Borgwardt** (<https://history.wustl.edu/people/elizabeth-borgwardt/>)

PhD, Stanford University  
(U.S. Foreign Relations)

**Flora Cassen**

PhD, New York University  
(Jewish History)

**Shefali Chandra** (<https://history.wustl.edu/people/shefali-chandra/>)

PhD, University of Pennsylvania  
(Modern South Asian History)

**Christine R. Johnson** (<https://history.wustl.edu/people/christine-johnson/>)

PhD, Johns Hopkins University  
(Early Modern European History)

**Sowandé Mustakeem** (<https://history.wustl.edu/people/sowande-mustakeem/>)

PhD, Michigan State University  
(Atlantic Slave Trade and the Middle Passage)

**Nancy Y. Reynolds** (<https://history.wustl.edu/people/nancy-reynolds/>)

PhD, Stanford University  
(Middle Eastern History)

**Anika Walke** (<https://history.wustl.edu/people/anika-walke/>)

PhD, University of California, Santa Cruz  
(European History)

**Lori Watt** (<https://history.wustl.edu/people/lori-watt/>)

Director of Graduate Studies  
PhD, Columbia University  
(Japanese History)

## Assistant Professors

### **Douglas Flowe** (<https://history.wustl.edu/people/douglas-flowe/>)

PhD, University of Rochester  
(American History)

### **Ulug Kuzuoglu**

PhD, Columbia University  
(Modern Chinese History)

### **Diana J. Montañó** (<https://history.wustl.edu/people/diana-montano/>)

PhD, University of Arizona  
(Latin American History)

### **Christina Ramos** (<https://history.wustl.edu/people/christina-ramos/>)

PhD, Harvard University  
(Latin American History)

## Teaching Professor

### **Krister Knapp** (<https://history.wustl.edu/people/krister-knapp/>)

PhD, Boston University  
(U.S. Intellectual History)

## Affiliated Faculty

### **Jean Allman** (<https://history.wustl.edu/people/jean-allman/>)

J.H. Hexter Professor in the Humanities  
PhD, Northwestern University  
(African and African-American Studies)

### **William Bubelis** (<https://history.wustl.edu/people/william-bubelis/>)

Associate Professor of Classics  
PhD, University of Chicago  
(Classics)

### **Adrienne D. Davis** (<https://history.wustl.edu/people/adrienne-davis/>)

William M. Van Cleve Professor of Law  
JD, Yale University School of Law

### **Mary Ann Dzuback** (<https://history.wustl.edu/people/mary-ann-dzuback/>)

Associate Professor of Education  
PhD, Columbia University  
(Education)

### **Martin Jacobs** (<https://history.wustl.edu/people/martin-jacobs/>)

Professor of Rabbinic Studies  
PhD and Habilitation, Free University of Berlin  
(Jewish, Islamic, and Middle Eastern Studies)

### **Zhao Ma** (<https://ealc.wustl.edu/people/zhao-ma/>)

Associate Professor of Modern Chinese History and Culture  
PhD, Johns Hopkins University  
(East Asian Languages and Cultures)

### **Laurie F. Maffly-Kipp** (<https://history.wustl.edu/people/laurie-f-maffly-kipp/>)

Archer Alexander Distinguished Professor  
PhD, Yale University  
(Danforth Center on Religion and Politics)

### **Rebecca Messbarger** (<https://history.wustl.edu/people/rebecca-messbarger/>)

Professor of Italian and Women, Gender, and Sexuality Studies  
PhD, University of Chicago  
(Romance Languages and Literatures)

### **Eric P. Mumford** (<https://history.wustl.edu/people/eric-mumford/>)

Rebecca and John Voyles Professor of Architecture  
PhD, Princeton University  
(Architecture)

### **Leigh E. Schmidt** (<https://history.wustl.edu/people/leigh-e-schmidt/>)

Edward C. Mallinckrodt Distinguished University Professor  
PhD, Princeton University  
(Danforth Center on Religion and Politics)

### **Mark Valeri** (<https://history.wustl.edu/people/mark-valeri/>)

Reverend Priscilla Wood Neaves Distinguished Professor of Religion and Politics  
PhD, Princeton University  
(Danforth Center on Religion and Politics)

### **Hayrettin Yücesoy** (<https://jimes.wustl.edu/people/hayrettin-yucesoy/>)

Associate Professor of Arabic and Islamic Studies  
PhD, University of Chicago

### **Steven Zwicker** (<https://history.wustl.edu/people/steven-zwicker/>)

Stanley Elkin Professor in the Humanities  
PhD, Brown University  
(English)

## Professors Emeriti

### **Steven Hause** (<https://history.wustl.edu/people/steven-hause/>)

PhD, Washington University

### **Derek M. Hirst** (<https://history.wustl.edu/people/derek-hirst/>)

William Eliot Smith Professor Emeritus of History  
PhD, Cambridge University

### **Gerald N. Izenberg** (<https://history.wustl.edu/people/gerald-izenberg/>)

PhD, Harvard University

**David T. Konig** (<https://history.wustl.edu/people/david-konig/>)

PhD, Harvard University

**Steven B. Miles** (<https://history.wustl.edu/people/steven-b-miles/>)

PhD, University of Washington  
(Chinese History)

**Linda J. Nicholson**

Susan E. and William P. Stiritz Distinguished Professor Emerita  
of Women's Studies  
PhD, Brandeis University

**Max J. Okenfuss** (<https://history.wustl.edu/people/max-okenfuss/>)

PhD, Harvard University

**Peter Riesenber**

PhD, Columbia University

**Laurence Schneider** (<https://history.wustl.edu/people/laurence-schneider/>)

PhD, University of California, Berkeley

**Richard J. Walter** (<https://history.wustl.edu/people/richard-walter/>)

PhD, Stanford University

## Degree Requirements

### PhD in History

#### Requirements and Academic Assessment

Doctoral candidates ordinarily spend two to three full academic years in residence. Before the dissertation defense takes place, doctoral candidates must have completed 72 units of graduate credit. Over the course of their doctoral program, graduate students may not register for more than 72 units of credit without special consideration. Of the 72 required units, no more than 24 units may be transferred from previous graduate work elsewhere.

#### Course Offerings

Literature of History (History 5471), which is offered during the fall semester on an annual or biannual basis, serves as an introduction to the graduate study of history, and it is required for all first-year students. In addition, students must complete Writing Historical Proposals and Prospectuses (History 5470), which is offered every other spring semester and is usually taken during the second or third year.

Pro-seminars are devoted to intensive reading and critical discussion, largely of secondary literature. A pro-seminar and research seminar may be linked as a sequence, exposing the student to the literature regarding a historical field, period, or

problem before requiring a research paper in that area. These experiences help students to develop a broad understanding of current problems in the fields to be covered in the qualifying examination.

Research seminars are devoted to the writing of a major paper in a particular historical field or on a particular period or topic, and they train the student in the analysis of particular historical problems, in research techniques, and in writing; these are the nuts and bolts of later work on a dissertation.

In some fields, students frequently enroll in tutorials (e.g., Readings in East Asian History [L22 610], Readings in African History [L22 613]). In tutorials, between one and four students work closely with a tenured faculty member (i.e., an associate professor or professor).

Graduate students may also occasionally enroll in undergraduate courses to acquire a broader mastery of a specific field or topic. If they do so, they must arrange extra course work with the instructor to qualify for full graduate credit. Most undergraduate courses open to graduate enrollment will have a corresponding course number at the 500 level to enable students to enroll for the full 4 units of graduate credit.

#### Grades

The performance of students in the Graduate School is marked by the grades A, B, C (Conditional) and F. The grade of C indicates unsatisfactory work and will be awarded academic credit only if matched by an equivalent number of units graded A. Plus or minus grades may be given, except for grades of B- or C+. Some courses may be graded S (Satisfactory) or F.

Graduate students should expect to earn a grade of A or A- as a mark of good progress through the program. Although a grade of B+ or B will qualify a student for full credit, these grades should be viewed as a warning that the student has not sufficiently demonstrated a full mastery of the course material at the doctoral level. More than one or two grades at this level carry the risk of negatively affecting a student's chances on the academic job market.

#### Mentored Teaching Experience

As part of their graduate training, students — with the exception of Chancellor's Fellows, Olin Fellows, and McDonnell International Scholars — will complete six semesters of Mentored Teaching Experiences (MTEs). At least four semesters of those MTEs will be in history courses. Chancellor's Fellows, Olin Fellows, and McDonnell International Scholars will complete four semesters of MTEs, at least two of which will be in history courses.

Students enroll for MTEs through the Graduate School's LGS 600 registration. In addition, students simultaneously enroll in a 2-unit advanced reading course in a field relating to the primary topic of the MTE and in a 2-unit Teaching in History course (History 511 or History 512). All students should also complete

the Teaching Citation program. As part of the department's commitment to support a diversity of career outcomes from our doctoral program, students may fulfill one Mentored Experience requirement with a Mentored Professional Experience.

## Annual Letters of Review and the Second-Year Review

The history department uses annual letters of review and the second-year review to keep students informed about the department's expectations of their progress and to identify any problems. At the end of each academic year (except the second year), students receive annual letters of review based on the observations of all faculty members with whom they have worked during the academic year, whether in a class, in a directed readings course, or in a Mentored Teaching Experience. The letters will identify any areas in which the student needs to improve and provide clear steps for addressing any concerns. In January of the second year, students receive a second-year review letter. The department uses the second-year review to identify students who are not performing at a satisfactory level. In consultation with the student's primary adviser, the department then sets goals for that student to meet by the end of the second semester of the second year. If these goals are not met, then the student will not be allowed to proceed to the PhD qualifying examinations; instead, the student will be offered an opportunity to secure an MA degree before leaving the PhD program.

In such cases, requirements for the MA degree are as follows:

- Students must satisfactorily complete a minimum of 36 units of credit. The Department of History does not require an MA thesis. Therefore, none of the required 36 units will be awarded for thesis research.
- Students must successfully complete the course Literature of History (History 5471).
- Students must develop expertise in two fields of historical study: one primary field and one secondary field.
- Students must pass an oral examination in these two fields of history.

## Qualifying Examinations

To be advanced to PhD candidacy, in addition to completing the necessary course work, students must meet the following requirements:

1. The qualifying examination, which entails the following three requirements:
  - a. Successful completion of the qualifying examination, which consists of a written component and an oral component (see below)
  - b. Two research papers that meet the approval of the committee (see below)
  - c. Evidence acceptable to the committee of competence in foreign language(s) or other skills relevant to the proposed research
2. The dissertation prospectus (see below)

These two basic requirements may be met in any order at the discretion of the student's primary adviser. In consultation with the primary adviser, the student may either take the qualifying examination (in addition to completing the required research papers and proving language competency) before submitting the dissertation prospectus, or vice versa. Please note that the examining committee and the dissertation committee will not necessarily consist of the same faculty members, although the student's primary adviser will serve on both committees.

The qualifying examination evaluates the student's competence in three fields of history or in two fields of history and one other discipline or program. The examining committee also assesses the student's readiness to undertake independent research for the dissertation, as indicated by the student's two research papers. The qualifying examination takes place during the second or third year and no later than June 30 of the third year.

Based on its review of the student's performance on the qualifying examination, the committee will declare whether, in their judgment, the student is qualified to proceed to PhD candidacy or if further procedures are required. These additional procedures may take the form of written or oral examinations in one or more of the three fields, further written work prepared to the committee's specifications, or further courses of study. Subsequent meetings may be required to evaluate such work. In any event, the qualification process, including any post-examination procedures, must be completed before classes begin the following fall term (i.e., the student's fourth year of graduate work).

Examiners do not formally grade performance on the qualifying examination except to indicate passage or failure. Passing constitutes qualification for the master's degree as a step toward the doctoral degree. A student who fails to qualify for dissertation research may nevertheless be recommended for a special terminal master's degree.



## Languages and Quantitative Skills

Each graduate student's need for linguistic and quantitative skills is determined during their first semester in consultation with their adviser. This determination is subject to review by the Graduate Studies Committee. The student's examining committee will ascertain, by the time of the qualifying examination, that sufficient progress toward acquiring these skills for dissertation research has been made.

The minimum requirement is normally competence in the language of the documents or culture in which the student proposes to do dissertation research as well as competence either in one other language (other than English) or in the practice of a quantitative or other technical skill. Students normally demonstrate competency by successfully taking a particular course, by passing a translation examination, or by using foreign-language primary sources to write a research paper.

## Dissertation Prospectus

The dissertation prospectus is a detailed statement describing the dissertation the student proposes to write. The dissertation should make an original contribution to historical scholarship.

Before choosing a subject, the student should consult the American Historical Association's list of theses in progress to avoid duplication. In roughly six to twelve pages, the prospectus should answer, as explicitly as possible, the following four questions:

1. *What are the major hypotheses or generalizations that the student expects to develop and test in the dissertation?*  
The prospectus should describe the historical phenomena (i.e., events, figures, situations, trends, or problems) to be explored. It should, however, look beyond mere narrative and description to the kinds of questions and potential answers the research itself will produce. In doing so, the prospectus should indicate the significance of the topic and hypotheses for the growth of historical knowledge. Since hypotheses are subject to the test of research, the prospectus may include tentative assertions that contradict as well as complement one another.
2. *What is the present status of relevant historical literature, and how will the proposed research contribute to ongoing debates in the field?* The answer will indicate how far the student has gone in thinking about the problem, demonstrate the student's familiarity with secondary materials, and attempt to situate the student's own investigation relative to other scholars in the field. A bibliography should be appended to the prospectus.
3. *What kinds of sources and data will the project involve, and what research procedures and techniques will be required?* The writer must have a conception of the resources needed, where they may be found, and how they can be tapped and

analyzed. Unexpected data or documents are sure to turn up, but the researcher must know where to begin. Some indication is needed of the documents, archives, published primary materials, and oral histories that will be consulted.

4. *What are the specific limits to the research that will keep the dissertation within manageable scope and length?*  
Reasonable care must be taken to develop a practicable dissertation problem and research plan that can be brought to completion. The prospectus should include information about any completed research work, manuscript drafts, and a tentative schedule for the project.

Since research alters the character of any proposed dissertation, the student is not bound to carry out the exact program described in their prospectus. However, the student should be able to present a reasonable plan at this stage. Those students intending to apply for Fulbright scholarships or foundation grants for their fourth year of study should have the prospectus ready at the beginning of their third year.

## Dissertation Prospectus Defense

The dissertation prospectus is defended before the dissertation advisory committee. The dissertation advisory committee consists of three faculty members. The primary adviser (i.e., the faculty member supervising the dissertation) is the first reader and the chair of the committee. The student and the first reader select appropriate faculty members to serve as second and third readers on the student's dissertation advisory committee. At least two of the three must be drawn from history department faculty.

Proficiency in significant original research, which is a major requirement for the PhD, is demonstrated chiefly in the dissertation. Students are encouraged to look beyond the dissertation to its publication.

## Title, Scope, and Procedure

After passing the qualifying examination, the candidate files two copies of the dissertation prospectus (revised, if necessary) with the department and submits the Title, Scope, and Procedure Form to the Graduate School. The student should also register the thesis in progress with the American Historical Association. Students may file the Title, Scope, and Procedure Form as soon as the research advisory committee has signed it. The Title, Scope, and Procedure Form must be filed before the start of the fifth year of graduate study.

## Dissertation Defense

Prior to submitting the final dissertation to the Graduate School, the student must successfully defend their dissertation in an oral examination before a committee approved by the Graduate School.

**Committee approval.** The examining committee consists of at least five members who normally meet two independent criteria:

- Four of the five must be tenured or tenure-track Washington University faculty; one of these four may be a member of the emeritus faculty. The fifth member must have a doctoral degree and an active research program, whether at Washington University, at another university, in government, or in industry.
- Three of the five must come from the student's degree program (i.e., history); at least one of the five must not.

All committees must be approved by the dean of the Graduate School or by their designee. To have their committee approved, students must fill out the Dissertation Defense Committee Form. This form must be signed by the department's director of graduate studies (DGS). The DGS or a department staff member will submit it to the Graduate School. Only after this step has been completed should the defense be scheduled.

After the committee has been approved and at least 15 days before the defense, students must send a copy of their curriculum vitae and the time, date, and location of the defense to the DGS and the department administrator. They will submit the Defense Notification to the Graduate School.

**Procedure.** Attendance by a minimum of four members of the Dissertation Defense Committee, including the committee chair and an outside member, is required for the defense to take place. This provision is designed to permit the defense to proceed in case of a situation that unexpectedly prevents one of the five members from attending. Students should not plan in advance to have only four members in attendance; if one of those four cannot attend, the defense must be rescheduled. Note that the absence of all outside members or of the committee chair would necessitate rescheduling of the defense.

### Submission of the Dissertation

Students who defend their dissertations successfully have not completed their PhD requirements; they finish earning the degree only when their dissertation submission has been accepted by the Graduate School. The exact dates for the deadline to submit the dissertation to the Graduate School are set yearly.

### Academic Probation and Dismissal

The Department of History closely follows the guidelines of the Graduate School of Arts & Sciences as described in the Policy on Probation and Dismissal for Academic Reasons.

All students in the PhD program are expected to satisfy the academic performance requirements of the Graduate School, which can be found in the General Requirements section of the Graduate School *Bulletin*.

### Additional History Department Requirements and Explanations

A full-time graduate student is not allowed more than one incomplete per semester, and that incomplete must be removed by the end of the following semester. Within this requirement, faculty and students may wish to enter into contracts specifying conditions for the removal of the incomplete.

To remain in good standing, a student should take the qualifying examinations by the first semester of the fourth year, at the very latest.

The Department of History's Graduate Studies Committee manages all departmental decisions regarding placement on probation, removal from probation, recommendations for dismissal after a probationary period, and recommendations for immediate dismissal due to extreme underperformance. The Graduate Studies Committee consists of the Director of Graduate Studies and three or four additional history department faculty members appointed by the chair of the history department at the beginning of each academic year.

Otherwise, there are no additional requirements beyond those of the Graduate School.

These guidelines will remain posted on the Department of History website (<https://history.wustl.edu/graduate-requirements-grades/>), and hard copies will be distributed at the annual history department orientation for new PhD students held in August each year.

### Jewish, Islamic, and Middle Eastern Studies

Jewish, Islamic, and Middle Eastern Studies is an academic department, unique in North America, in which Jewish Studies and Islamic Studies are integrated. It is an interdisciplinary department with the purpose of allowing students to explore the historical experience; the literary, religious and cultural expression; and the political and material life of the Jewish, Islamic and Middle Eastern civilizations. Whether students favor the study of language, literature, religion, history or politics, they will find in our courses a way to deepen their appreciation of these complex and diverse societies and cultures. Students will also be encouraged to explore the interaction of Jews and Muslims with neighboring societies and cultures in the Middle East, Europe, North Africa and other parts of the world.

The department offers both a **Master of Arts in Jewish Studies** and a **Master of Arts in Islamic and Near Eastern Studies**.

The department does not currently offer a home-based PhD program. Students who would like to pursue a PhD in one of the fields of Jewish Studies or Islamic and Near Eastern Studies may do so under the auspices of a PhD-granting department or program (e.g., History, Anthropology, Comparative Literature)

in cooperation with participating faculty from Jewish, Islamic, and Middle Eastern Studies. In such instances, the prospective student should apply directly to the appropriate disciplinary department or program at Washington University.

Phone: 314-935-8567  
Email: scordias@wustl.edu  
Website: <http://jimes.wustl.edu>

## Faculty

### Chair

**Flora Cassen** (<https://jimes.wustl.edu/people/flora-cassen/>)  
Associate Professor of Jewish, Islamic, and Middle Eastern Studies and of History  
PhD, New York University

### Endowed Professor

**Hillel J. Kieval** (<https://jimes.wustl.edu/people/hillel-j-kieval/>)  
Gloria M. Goldstein Professor of Jewish History and Thought  
PhD, Harvard University

### Professors

**Pamela Barmash** (<https://jimes.wustl.edu/people/pamela-barmash/>)  
Professor of Hebrew Bible and Biblical Hebrew  
PhD, Harvard University

**Nancy E. Berg** (<https://jimes.wustl.edu/people/nancy-berg/>)  
Professor of Hebrew Language and Literature  
PhD, University of Pennsylvania

**Martin Jacobs** (<https://jimes.wustl.edu/people/martin-jacobs/>)  
Professor of Rabbinic Studies  
PhD and Habilitation, Free University of Berlin

**Erin McGlothlin** (<https://jimes.wustl.edu/people/erin-mcglathlin/>)  
Vice Dean of Undergraduate Affairs in Arts & Sciences  
Professor of German and Jewish Studies  
PhD, University of Virginia

### Associate Professors

**Nancy Reynolds** (<https://jimes.wustl.edu/people/nancy-reynolds/>)  
Associate Professor of History and of Jewish, Islamic, and Middle Eastern Studies  
PhD, Stanford University

**Anika Walke** (<https://history.wustl.edu/people/anika-walke/>)  
Associate Professor of History  
PhD, University of California

**Hayrettin Yücesoy** (<https://jimes.wustl.edu/people/hayrettin-yucesoy/>)

Director of Undergraduate Studies  
Associate Professor of Arabic and Islamic Studies  
PhD, University of Chicago

### Assistant Professor

**Aria Nakissa** (<https://jimes.wustl.edu/people/aria-nakissa/>)  
Director of Graduate Studies  
Assistant Professor of Islamic Studies  
PhD, Harvard University

### Teaching Professor

**Younasse Tarbouni** (<https://jimes.wustl.edu/people/younasse-tarbouni/>)  
Teaching Professor in Arabic  
PhD, L'École des Hautes Études en Sciences Sociales (EHESS)

### Senior Lecturer

**Housni Bennis** (<https://jimes.wustl.edu/people/housni-bennis/>)  
Senior Lecturer in Arabic Language  
MA, Washington University in St. Louis

### Lecturers

**Martin Luther Chan** (<https://jimes.wustl.edu/people/martin-luther-chan/>)  
Lecturer of Hebrew  
PhD, University of California at Los Angeles

**Meera Jain** (<https://jimes.wustl.edu/people/meera-jain/>)  
Lecturer of Hindi  
MArch, University of Texas at Austin

**Sara Jay** (<https://jimes.wustl.edu/people/sara-jay/>)  
Lecturer in Jewish, Islamic, and Middle Eastern Studies  
PhD, Washington University in St. Louis

**Toqeer Shah** (<https://jimes.wustl.edu/people/toqeer-shah/>)  
Lecturer of Urdu  
MSc, University of Peshawar

**Eyal Tamir** (<https://jimes.wustl.edu/people/eyal-tamir/>)  
Lecturer of Hebrew  
PhD, University of Massachusetts, Amherst

**Madhavi Verma** (<https://jimes.wustl.edu/people/madhavi-verma/>)  
Lecturer in Hindi Languages and Cultures  
MA, Patna University

### Teaching Fellow

**Elai Rettig** (<https://jimes.wustl.edu/people/elai-rettig/>)  
Israel Institute Teaching Fellow  
PhD, University of Haifa

## Postdoctoral Fellow

**Maxwell E. Greenberg** (<https://jimes.wustl.edu/people/maxwell-e-greenberg/>)

Friedman Postdoctoral Fellow in Jewish Studies  
PhD, University of California, Los Angeles

## Postdoctoral Research Associate

**David H. Warren** (<https://jimes.wustl.edu/people/david-h-warren/>)

PhD, University of Manchester

## Endowed Professor — Affiliated

**John R. Bowen** (<https://anthropology.wustl.edu/people/john-bowen/>)

Dunbar-Van Cleve Professor in Arts & Sciences  
PhD, University of Chicago

## Professors — Affiliated

**Lois Beck** (<https://anthropology.wustl.edu/people/lois-beck/>)

Professor of Sociocultural Anthropology  
PhD, University of Chicago

**Robert Canfield** (<https://anthropology.wustl.edu/people/robert-canfield/>)

Professor Emeritus of Sociocultural Anthropology  
PhD, University of Michigan

**Michael Frachetti** (<https://anthropology.wustl.edu/people/michael-frachetti/>)

Professor of Anthropology  
PhD, University of Pennsylvania

**Tabea Alexa Linhard** (<https://rll.wustl.edu/people/ta-bea-alexa-linhard/>)

Professor of Spanish and Comparative Literature  
PhD, Duke University

**Joseph Schraibman** (<https://rll.wustl.edu/people/joseph-schraibman/>)

Professor of Romance Languages  
PhD, University of Illinois at Urbana-Champaign

## Associate Professor — Affiliated

**Seth Graebner** (<https://rll.wustl.edu/people/seth-graebner/>)

Associate Professor of French and Global Studies  
PhD, Harvard University

## Degree Requirements

The Department of Jewish, Islamic, and Middle Eastern Studies at Washington University in St. Louis offers two terminal master's degrees: a Master of Arts in Jewish Studies (p. 115) and a Master of Arts in Islamic and Near Eastern Studies (p. 116). Although both programs have their own curricula, the department's integrated nature provides students with a unique opportunity to explore the shared experiences and interactions

of Jews and Muslims in their various cultural and historical contexts. Both Master of Arts (AM) programs are two-year, full-time programs that foster breadth and depth of study and that include a graduation requirement of advanced language proficiency. Close mentoring relationships allow for tailoring a program of study to a student's specific interests and goals. Due to the excellence of our AM programs, many of our graduates have subsequently been accepted into highly prestigious PhD programs.

## Master of Arts in Jewish Studies

The AM program in Jewish Studies offers students an opportunity for dedicated interdisciplinary study of the history, literatures and cultures of the Jewish people from biblical to modern times. It is designed for students who have some college-level preparation in the field and who wish to deepen their expertise in preparation for a PhD program. It is also well-suited for those planning on professional careers in areas such as education, law, publishing, business or social work. Our faculty offer graduate-level instruction in the Hebrew Bible; rabbinic Judaism and its sources; medieval, early modern, and modern Jewish history in both Europe and the Middle East; Jewish-Muslim encounters; premodern and modern Hebrew and Jewish literature; and Israeli culture. Applicants to the AM program must show proficiency in the Hebrew language equivalent to at least one year of college-level study. At the end of two years of courses, students will be expected to have successfully completed third-year Hebrew before receiving the AM degree.

## Degree Requirements

- A minimum of 36 credits from graduate-level courses, which may include up to 6 units transferred from another institution (**Note:** First- and second-year language classes do not count toward these 30 credits.)
- The successful completion of third-year Hebrew
- The ability to use Hebrew source material and scholarly articles as demonstrated in at least one major seminar paper
- A second major research paper to be written either in a second seminar or in an independent study supervised by one of the faculty associated with the program (**Note:** Students have the option of writing a master's thesis in place of the two major research papers; please refer to Policies and Timelines (p. 116) below.)
- At the end of the program of study, the successful completion of an oral examination, lasting no more than one hour, based on either the two research papers submitted (and revised) for this purpose or the master's thesis

Please note the departmental Policies and Timelines (p. 116) below.

## Master of Arts in Islamic and Near Eastern Studies

The AM program in Islamic and Near Eastern Studies offers students an opportunity for dedicated interdisciplinary study of the history, literatures and cultures of the Middle East from the Middle Ages to the present. It is designed for students who ideally have some college-level preparation in the field and who wish to deepen their expertise in preparation for a PhD program. It is also well-suited for those planning on professional careers in education, law, publishing, business, government and private agencies whose work touches upon some aspect of Islamic and Near Eastern Studies. Our faculty offer graduate-level instruction in Islamic and Middle Eastern history; Islam in world history; Islamic religion and law; the anthropology of Islam; premodern Muslim political theory and practice; Middle Eastern urban studies; and both classical and modern Arabic literatures. Admission to the AM program normally requires proficiency in the Arabic language equivalent to one year of college-level study. After a typical two years of courses, students will be expected to have successfully completed third-year Arabic before receiving the AM degree.

### Degree Requirements

- A minimum of 36 credits from graduate-level courses, which may include up to 6 units transferred from another institution (**Note:** First- or second-year language classes do not count toward these 30 credits.)
- The successful completion of third-year Arabic
- The ability to use Arabic source material and scholarly articles as demonstrated in at least one major seminar paper
- A second major research paper to be written either in a second seminar or in an independent study supervised by one of the faculty associated with the program (**Note:** Students have the option of writing a master's thesis in place of the two major research papers; please refer to Policies and Timelines (p. 116) below.)
- At the end of their program of study, the successful completion of an oral examination, lasting no more than one hour, based on either the two research papers submitted (and revised) for this purpose or the master's thesis

Please note the departmental Policies and Timelines (p. 116) below.

### Policies and Timelines Applying to Both AM Programs

To complete our AM programs — including the third-year language requirement — within the typical course of two years, students need to be highly self-motivated and should develop close working relationships with their academic advisers. Students may elect to graduate **with** or **without** writing a master's thesis. The master's thesis, which is usually about 80

to 100 pages long, represents original work of highly polished quality and is significantly more substantive than a research paper. (For guidelines, please refer to the Master's Thesis Guide (<http://graduateschool.wustl.edu/guides-0/>) issued by the Graduate School.) Instead of the thesis, students may decide to (re)submit and defend two significantly revised research papers written in the program, each of which should be at least 30 pages long.

### Master's students planning to graduate without a thesis:

#### Second Year

- *First week of fall semester:* Meet with adviser to discuss graduation plans
- *First week of spring semester:* Meet with adviser to determine the two research papers, select the three members of the defense committee, agree on submission deadlines, and schedule the defense
- *End of March to Early April:* Oral defense

### Master's students planning to graduate with a thesis:

#### First Year

- *End of spring semester:* Approach a primary thesis adviser (who may be [but does not have to be] the academic adviser)

#### Second Year

- *Fall and spring semesters:* Enroll in L75 JIMES 591 Directed Writing: Thesis
- *First week of spring semester:* Confirm a thesis committee of three readers, in conversation with the academic adviser, and schedule the oral defense
- *Friday before spring break:* Final draft of thesis due to thesis adviser
- *End of March to early April:* Oral defense

## Latin American Studies

The **Graduate Certificate in Latin American Studies** offers Washington University students the opportunity to pursue a multidisciplinary specialization on this region of the world while completing their PhD degree. The certificate combines discipline-based learning with cultural studies, thus allowing for a rigorous approach to Latin America's social, economic and political history. At the same time, students are exposed to new theories and current debates on the topics of nation formation, governance, colonialism, development, regionalism, public health, modernization, globalization and neoliberalism.

At the national level, programs in Latin American Studies date back to the late 1940s, when the area studies paradigm became central to the internationalization of academic focus in the context of the Cold War. Today, as globalization has made internationalization an even more pressing concern, Latin American Studies is part of a new need for the better understanding of other world regions. In fact, Latin American countries consistently play an important role within the intellectual and political spheres of the United States. Latin America is the single largest source of immigrants to the United States today. It contains the third-largest trade partner of the United States (Mexico); one of the most vibrant emergent economies in the world (Brazil); countries that have been at the core of U.S. foreign policy for decades (Colombia, Venezuela, Cuba, and the Andean region, for instance); and a vibrant population and culture that are increasingly the focus of U.S. students.

## Application

Students are required to apply to be considered for the certificate program, and their applications will be evaluated by the Graduate Certificate Committee on a rotating basis. This application is submitted at the beginning of the student's doctoral courses in Arts & Sciences and requires a support letter from the director of graduate studies of their PhD home department or program. The chair of the Graduate Certificate Committee will forward recommendations for admission to the dean of the Graduate School for final approval. All applicants to the certificate program are expected to be in good academic standing as defined by the Graduate School.

Contact: Professor Ignacio Sánchez Prado  
Phone: 314-935-5175  
Email: [isanchez@wustl.edu](mailto:isanchez@wustl.edu)  
Website: <http://lasprogram.wustl.edu>

## Faculty

### Core Faculty

**Mabel Moraña** (<https://rll.wustl.edu/people/mabel-morana/>)

William H. Gass Professor in Arts & Sciences  
PhD, University of Minnesota  
(Romance Languages and Literatures)

**Ignacio Sánchez Prado** (<https://rll.wustl.edu/people/ignacio-sanchez-prado/>)

Jarvis Thurston and Mona Van Duyn Professor in the Humanities  
PhD, University of Pittsburgh  
(Romance Languages and Literatures)

**Eliza Williamson** (<http://lasprogram.wustl.edu/people/eliza-williamson/>)

Lecturer  
PhD, Rice University  
(Latin American Studies; Romance Languages and Literatures)

### Faculty Specialized in Latin America

**William Acree** (<https://rll.wustl.edu/people/william-acree/>)

Associate Professor  
PhD, University of North Carolina at Chapel Hill  
(Romance Languages and Literatures)

**Sarah Baitzel** (<https://anthropology.wustl.edu/people/sarah-baitzel/>)

Assistant Professor  
PhD, University of California, San Diego  
(Anthropology)

**J. Andrew Brown** (<https://rll.wustl.edu/people/j-andrew-brown/>)

Professor  
PhD, University of Virginia  
(Romance Languages and Literatures)

**Rebecca Clouser** (<https://ias.wustl.edu/people/rebecca-clouser/>)

Lecturer  
PhD, Indiana University  
(International and Area Studies)

**Brian Crisp** (<https://polisci.wustl.edu/people/brian-crisp/>)

Professor  
PhD, University of Michigan  
(Political Science)

**David Freidel** (<https://anthropology.wustl.edu/people/david-freidel/>)

Professor  
PhD, Harvard University  
(Anthropology)

**Javier García-Liendo** (<https://rll.wustl.edu/people/javier-garcia-liendo/>)

Associate Professor  
PhD, Princeton University  
(Romance Languages and Literatures)

**Bret Gustafson** (<https://anthropology.wustl.edu/people/bret-gustafson/>)

Associate Professor  
PhD, Harvard University  
(Anthropology)

**Steven Hirsch** (<https://ias.wustl.edu/people/steven-j-hirsch/>)

Professor of Practice  
PhD, George Washington University  
(International and Area Studies)

**Stephanie Kirk** (<https://rll.wustl.edu/people/stephanie-kirk/>)

Professor  
PhD, New York University  
(Romance Languages and Literatures)

**Tabea Linhard** (<https://rll.wustl.edu/people/tabea-alexalinhard/>)

Professor  
PhD, Duke University  
(Romance Languages and Literatures)

**Diana Montañó** (<https://history.wustl.edu/people/diana-montano/>)

Assistant Professor  
PhD, University of Arizona  
(History)

**Christina Ramos** (<https://history.wustl.edu/people/christina-ramos/>)

Assistant Professor  
PhD, Harvard University  
(History)

**Guillermo Rosas** (<https://polisci.wustl.edu/people/guillermo-rosas/>)

Associate Professor  
PhD, Duke University  
(Political Science)

**Joseph Schraibman** (<https://rll.wustl.edu/people/joseph-schraibman/>)

Professor  
PhD, University of Illinois  
(Romance Languages and Literatures)

**Ila Sheren** (<http://arthistory.artsci.wustl.edu/people/ila-sheren/>)

Assistant Professor  
PhD, Massachusetts Institute of Technology  
(Art History and Archaeology)

**Elzbieta Sklodowska** (<https://rll.wustl.edu/people/elzbieta-sklodowska/>)

Randolph Family Professor in Arts & Sciences  
PhD, Washington University  
(Romance Languages and Literatures)

**Miguel Valerio** (<https://rll.wustl.edu/people/miguel-valerio/>)

Assistant Professor  
PhD, Ohio State University  
(Romance Languages and Literatures)

## Professors Emeriti

**David L. Browman** (<https://anthropology.wustl.edu/people/david-browman/>)

PhD, Harvard University  
(Anthropology)

**Pedro C. Cavalcanti** (<https://anthropology.wustl.edu/people/pedro-c-cavalcanti/>)

PhD, University of Warsaw  
(Anthropology)

**John F. Garganigo** (<https://rll.wustl.edu/people/john-garganigo/>)

PhD, University of Illinois  
(Romance Languages and Literatures)

**Richard J. Walter** (<https://history.wustl.edu/people/richard-walter/>)

PhD, Stanford University  
(History)

## Degree Requirements

### Graduate Certificate in Latin American Studies

Students interested in earning the Graduate Certificate in Latin American Studies must complete 15 graduate units; 6 of those units may also count toward the PhD requirements with the prior approval of the PhD home department director of graduate studies. The graduate certificate is awarded concurrently with the PhD degree. Students in the Latin American Studies graduate certificate program must fulfill all requirements of the PhD required by their respective home departments and the Graduate School, in addition to the following certificate requirements:

**Complete a total of 15 graduate credits:**

- 3 credits from one Latin American Studies program core course
- 3 credits from one 400-level course from the Latin American Studies core program
- 9 credits from three Latin American Studies program–related courses in at least two departments or schools outside the student's major department

**Other requirements:**

- Students must have proven proficiency in Spanish or Portuguese in accordance with the guidelines established by the Department of Romance Languages and Literatures.
- Students must spend at least one summer abroad conducting research in Latin American Studies.
- Students must participate actively in the Latin American Colloquium for at least one semester. This participation is to include the presentation of a research paper, which should ideally result from the summer research mentioned above.

## Mathematics and Statistics

The Department of Mathematics and Statistics offers two master's degrees (one in mathematics and one in statistics) and two doctoral degrees (one in mathematics and one in statistics). The areas of study for mathematics include algebra, algebraic geometry, real and complex analysis, differential geometry, and topology. The areas of study for statistics are mathematical statistics, survival analysis, modeling, statistical computing for massive data, Bayesian regulation, bioinformatics, longitudinal and functional data analysis, statistical computation, asymptotic

theory, objective Bayes, bootstrap, post-selection inference, and the application of statistics to medicine. Because it is difficult to make up coherent programs for students entering in the middle of the year, students are ordinarily admitted only in the fall.

When they first arrive, graduate students have the opportunity to share common concerns and to become acquainted. One of the most attractive features of our program is the friendly and supportive atmosphere that develops among our graduate students. Advanced courses in the Washington University mathematics and statistics department can build on the common background shared by all students. As a result, these courses are richer and nearer to the level of PhD work than typical advanced courses.

Students typically complete the PhD program in five years. A student who comes here with advanced preparation may finish in less time. On the other hand, some students find that it is advisable for them to take preparatory math courses before attempting the qualifying courses. In special cases, the time schedule may be lengthened accordingly. Each student should plan to develop a close relationship with their thesis adviser so that the adviser may have a realistic idea of the student's progress.

Graduate study in mathematics or statistics is not for everyone. Entering students usually find that the time and effort required to succeed goes well beyond anything they encountered as undergraduates. Success requires both ample mathematical ability and the determination to grapple with a subject for many days or weeks until the light of understanding shines through, and the experience can be daunting. Those who continue in their studies are largely those for whom the pleasure of attaining that understanding more than compensates for the required effort. For such persons, the life of a mathematician can be richly rewarding.

**The application deadline is December 15, 2021.**

Application to the Masters in Statistics program typically requires the submission of GRE scores. However, GRE scores will be optional for those students applying in the autumn of 2021 for the 2022-23 academic year to accommodate prospective students who do not have access to testing during the COVID-19 pandemic.

**Email:** Brett Wick, Director of Graduate Studies  
([bwick@wustl.edu](mailto:bwick@wustl.edu)) or Mary Ann Stenner ([stenner@wustl.edu](mailto:stenner@wustl.edu))

Phone: 314-935-6760

Website: <http://wumath.wustl.edu/graduate>

## Faculty

### Chair

**John Shreshian** (<https://math.wustl.edu/people/john-shreshian/>)

PhD, Rutgers University

Algebraic and topological combinatorics

### Directors

**José Figueroa-López** (<https://math.wustl.edu/people/jose-e-figueroa-lopez/>)

Director of Undergraduate Studies

PhD, Georgia Institute of Technology

Statistics; probability and stochastic processes; mathematical finance

**Brett Wick** (<https://math.wustl.edu/people/brett-wick/>)

Director of Graduate Studies; Professor of Mathematics

PhD, Brown University

Complex analysis; harmonic analysis; operator theory; several complex variables

### Endowed Professors

**Soumendra Lahiri** (<https://math.wustl.edu/people/soumendra-lahiri/>)

Stanley A. Sawyer Professor

PhD, Michigan State University

Mathematical statistics and data science

**John E. McCarthy** (<https://math.wustl.edu/people/john-e-mccarthy/>)

Spencer T. Olin Professor of Mathematics

PhD, University of California, Berkeley

Analysis; operator theory; one and several complex variables

**Rachel Roberts** (<https://math.wustl.edu/people/rachel-roberts/>)

Elinor Anheuser Professor of Mathematics

PhD, Cornell University

Low-dimensional topology

### Professors

**Quo-Shin Chi** (<https://math.wustl.edu/people/quo-shin-chi/>)

PhD, Stanford University

Differential geometry

**Renato Feres** (<https://math.wustl.edu/people/renato-feres/>)

PhD, California Institute of Technology

Differential geometry; dynamical systems

**José Figueroa-López** (<https://math.wustl.edu/people/jose-e-figueroa-lopez/>)

PhD, Georgia Institute of Technology

Statistics; probability and stochastic processes; mathematical finance



**Matthew Kerr** (<https://math.wustl.edu/people/matthew-kerr/>)

PhD, Princeton University  
Algebraic geometry; Hodge theory

**Steven G. Krantz** (<https://math.wustl.edu/people/steven-g-krantz/>)

PhD, Princeton University  
Several complex variables; geometric analysis

**Nan Lin** (<https://math.wustl.edu/people/nan-lin/>)

PhD, University of Illinois at Urbana-Champaign  
Statistics

**N. Mohan Kumar** (<http://math.wustl.edu/people/n-mohan-kumar/>)

PhD, Bombay University  
Algebraic geometry; commutative algebra

**Xiang Tang** (<https://math.wustl.edu/people/xiang-tang/>)

PhD, University of California, Berkeley  
Symplectic geometry; noncommutative geometry; mathematical physics

**Brett Wick** (<https://math.wustl.edu/people/brett-wick/>)

PhD, Brown University  
Complex analysis; harmonic analysis; operator theory; several complex variables

**Mladen Victor Wickerhauser** (<https://math.wustl.edu/people/mladen-victor-wickerhauser/>)

PhD, Yale University  
Harmonic analysis; wavelets; numerical algorithms for data compression

## Associate Professors

**Roya Beheshti Zavareh** (<https://math.wustl.edu/people/roya-beheshti-zavareh/>)

PhD, Massachusetts Institute of Technology  
Algebraic geometry

**Jimin Ding** (<https://math.wustl.edu/people/jimin-ding/>)

PhD, University of California, Davis  
Statistics

**Francesco di Plinio** (<http://math.wustl.edu/people/francesco-di-plinio-0/>)

PhD, Indiana University Bloomington  
Harmonic analysis; partial differential equations

**Gregory Knese** (<https://math.wustl.edu/people/gregory-knese/>)

PhD, Washington University  
Complex function theory; operators; harmonic analysis

**Todd Kuffner** (<https://math.wustl.edu/people/todd-kuffner/>)

PhD, Imperial College London  
Statistics; likelihood; asymptotics; econometrics

**Debashis Mondal**

PhD, University of Washington  
Statistics

**Ari Stern** (<https://math.wustl.edu/people/ari-stern/>)

PhD, California Institute of Technology  
Geometric numerical analysis; computational mathematics

## Assistant Professors

**Aliakbar Daemi** (<https://math.wustl.edu/people/aliakbar-daemi/>)

PhD, Harvard University  
Gauge theory; low-dimensional topology; symplectic geometry

**Laura Escobar Vega** (<https://math.wustl.edu/people/laura-escobar-vega/>)

PhD, Cornell University  
Combinatorics and algebraic geometry

**Steven Frankel** (<https://math.wustl.edu/people/steven-frankel/>)

PhD, University of Cambridge  
Geometric topology and dynamics

**Martha Precup** (<https://math.wustl.edu/people/martha-precup/>)

PhD, University of Notre Dame  
Applications of Lie theory to algebraic geometry and the related combinatorics

**Donsub Rim** (<https://math.wustl.edu/people/donsub-rim/>)

PhD, University of Washington  
Applied mathematics

**Yanli Song** (<https://math.wustl.edu/people/yanli-song/>)

PhD, Pennsylvania State University  
Noncommutative geometry; symplectic geometry; representation theory

## Professors Emeriti

**Lawrence Conlon** (<https://math.wustl.edu/people/lawrence-conlon/>)

PhD, Harvard University  
Differential topology

**Ron Freiwald** (<https://math.wustl.edu/people/ron-freiwald/>)

PhD, University of Rochester  
General topology

**Gary R. Jensen** (<https://math.wustl.edu/people/gary-r-jensen/>)

PhD, University of California, Berkeley  
Differential geometry

**Robert McDowell** (<https://math.wustl.edu/people/robert-mcdowell/>)

PhD, Purdue University  
General topology

**Richard Rochberg**

PhD, Harvard University  
Complex analysis; interpolation theory

**Jack Shapiro** (<https://math.wustl.edu/people/jack-shapiro/>)

PhD, City University of New York  
Algebraic K-theory

**Edward Spitznagel** (<https://math.wustl.edu/people/edward-spitznagel/>)

PhD, University of Chicago  
Statistics; statistical computation; application of statistics to medicine

**Guido L. Weiss** (<https://math.wustl.edu/people/guido-l-weiss/>)

PhD, University of Chicago  
Interpolation of operators; harmonic analysis; Lie groups

**Edward N. Wilson** (<https://math.wustl.edu/people/edward-n-wilson/>)

PhD, Washington University  
Harmonic analysis; differential geometry

**David Wright** (<https://math.wustl.edu/people/david-wright/>)

PhD, Columbia University  
Affine algebraic geometry; polynomial automorphisms

## William Chauvenet Postdoctoral Lecturers

**Michael Landry** (<http://math.wustl.edu/people/michael-landry/>)

PhD, Yale University  
Low-dimensional geometry and topology

**Andrew Walton Green** (<https://math.wustl.edu/people/andrew-walton-green/>)

PhD, Clemson University  
Harmonic analysis and partial differential equations

**Ben Wormleighton** (<https://math.wustl.edu/people/ben-wormleighton/>)

PhD, University of California, Berkeley  
Algebraic and symplectic geometry

## Postdoctoral Lecturers

**Meric Augat** (<http://math.wustl.edu/people/meric-augat/>)

PhD, University of Florida  
Free analysis; multivariable operator theory; noncommutative algebra; free skew fields

**Shuhao Cao** (<https://math.wustl.edu/people/shuhao-cao/>)

PhD, Purdue University  
Numerical PDF and optimization

**Humberto Diaz** (<https://math.wustl.edu/people/humberto-diaz/>)

PhD, Duke University  
Algebraic geometry

**Rudy Rodsphon** (<https://math.wustl.edu/people/rudy-rodsphon/>)

PhD, Vanderbilt University  
Noncommutative geometry

**Xiaoyu Wang** (<https://math.wustl.edu/people/xiaoyu-wang/>)

PhD, Florida State University  
Statistics

## Senior Lecturer

**Abigail Jager** (<https://math.wustl.edu/people/abigail-jager/>)

PhD, University of Chicago  
Statistics and causal inference

## Lecturers

**Silas Johnson** (<https://math.wustl.edu/people/silas-johnson/>)

PhD, University of Wisconsin-Madison  
Algebraic number theory; arithmetic statistics

**Karl Schaefer** (<https://math.wustl.edu/people/karl-schaefer/>)

PhD, University of Chicago  
Algebraic number theory

## Associate Director of Undergraduate Studies

**Blake Thornton** (<https://math.wustl.edu/people/blake-thornton/>)

PhD, University of Utah  
Geometric topology

## Program Coordinator

**Lisa M. Kuehne** (<https://math.wustl.edu/people/lisa-kuehne/>)

Program Coordinator, University College & Center for Advanced Learning  
AM Mathematics, Washington University  
Undergraduate mathematics education

## Degree Requirements

### Master of Arts in Mathematics

**General requirements:** There are 36 units of graduate-level course work required, with or without a thesis; 6 units may be for thesis research. The minimum residence requirement is one full academic year of graduate study. If the department consents, a student may transfer up to 6 units from other universities. A grade-point average of B or better must be maintained in graduate course work.

**Course requirements:** There are four basic graduate course sequences in pure mathematics: Math 5021–5022, 5031–5032, 5045–5046 or 5047, and 5051–5052. A candidate for the AM in Mathematics must include two of these sequences (12 units) in the required 36 units. Each student, in consultation with their adviser, selects the remaining 24 units according to the student's interests and needs.

## Master of Arts in Statistics

**General requirements:** There are 36 units of course work required and an optional thesis; 3 units may be for thesis research. The minimum residence requirement is one full academic year of graduate study. A GPA of B or better must be maintained in graduate courses.

**Optional thesis requirements:** To be eligible for the thesis option, a student must maintain a cumulative GPA of 3.5 or higher in the first 18 units of courses satisfying the program requirements.

**Course requirements:** The student must take (or have taken) the following six required courses in mathematics or their equivalents:

One of the following two sequences:

Required	Units
Probability; Mathematical Statistics or Theory of Statistics I & II	6

plus:

Required	Units
Linear Statistical Models	3
Bayesian Statistics	3
Statistical Computation or a suitable substitute elective approved by the department	3
Practical Training	3

If an equivalent course has been taken and proficiency in the course material has been demonstrated, other 400-level and above electives may be substituted in consultation with the adviser. Additional 400-level or higher electives will be chosen by the student in consultation with their adviser to make up the 36 units.

## PhD in Mathematics

No one can earn a doctorate merely by completing a specified course of study; the doctoral candidate must demonstrate high scholarship and the ability to perform significant original research in mathematics.

**General requirements:** Completion of the PhD requires four full years of graduate study (72 units), with at least 48 units completed in residence at Washington University. The student must spend at least one academic year as a full-time

student; this requirement cannot be met wholly by summer sessions or part-time study. The student may, with departmental permission, transfer a maximum of 24 graduate credits from other universities. The typical course load is 9 credit units per semester. A GPA of B or better is required in graduate course work.

Graduate students in mathematics may ordinarily expect up to five years of support. Continuation of support each year is dependent upon normal progress toward the degree and the satisfactory performance of duties.

For the well-prepared student, "normal progress" usually means the following:

- At the end of the second year, the student has successfully completed the specific course requirements and passed six qualifying exams.
- At the end of the third year, the student has successfully completed the candidacy requirement.
- At the end of the fourth year, the student has completed the 72-unit course requirement and is making substantial progress on a thesis.

Students must also complete the Teaching Seminar course (L24 597). This course prepares them for both Assistant to the Instructor work and academic teaching duties, which are integral to all scholarly activities. The course spans three semesters, usually starting in the second semester. Each student will have departmental duties (e.g., grading, proctoring) of no more than 15 hours per week as Assistant to the Instructor. Students must also complete a Professional Development course (L24 598).

Please note that the sequence outlined above is for "well-prepared" students. The exact point at which any student enters the sequence depends on their ability and background. When warranted, deviation from the normal sequence is permissible, and a tailored program that fits the student's ability and background will be followed.

**Specific course requirements:** The 72 units of course work must include eight of the following nine courses: Math 5031–5032 (Algebra I and Algebra II), Math 5051–5052 (Real Analysis and Functional Analysis), Math 5021–5022 (Complex Analysis I & II), and Math 5045–5047 (Algebraic Topology, Differential Topology, and Differential Geometry). Students may omit one of the following courses when satisfying the course requirement: Math 5022, 5047, or 5052. To satisfy the breadth requirement, the student must pass the required courses with a B or better. The courses are typically offered in the following time frame:

Fall: Algebra I, Real Analysis, Complex Analysis I,  
Algebraic Topology, Differential Geometry

Spring: Algebra II, Functional Analysis, Complex Analysis  
II, Differential Topology

In exceptional circumstances, departmental permission may be requested to replace required courses with suitable alternatives. The student may also petition the department to waive one or more of these courses because of work completed previously.

It is in each student's best interest to take the courses that contain the material covered in the qualifying exams as soon as their individual program allows. Sequels to these courses, at the 500 level, are frequently offered; the qualifying exam courses are generally prerequisites to these 500-level courses.

**Language requirement:** All students must demonstrate proficiency in English.

If English is not the student's native language, they must pass an oral English proficiency exam with a grade of 3 or better. If the student does not score a 3 the first time they take the exam, the director of the English Language Program at the International Office will recommend that the student take one or more classes to improve reading, writing, pronunciation, listening or speaking skills. After the recommended classes have been completed, the student is required to retake the English proficiency exam. Once the student has demonstrated the ability to handle teaching a class (by scoring a 3 or better on the exam), they will qualify for Assistant to the Instructor or Course Instructor duties.

**Qualifying examinations and candidacy requirements:**

The qualifying exam and candidacy requirement constitute two separate requirements. The qualifying exam is a series of six written tests that cover a range of topics; the candidacy requirement is an oral presentation and thesis proposal.

The written tests cover the material in one semester of courses: 5021, 5022, 5031, 5032, 5045, 5046, 5047, 5051 and 5052. To satisfy the written exam requirement, the student must pass six out of the nine possible qualification exams, with the requirement that two be from Math 5021, 5022, 5051 or 5052; two be from Math 5045, 5046 or 5047; and two be from Math 5031 and 5032. To satisfy the qualification examination requirement, the student must pass the final exam for the course with an A- or better.

Because each course varies somewhat in content from year to year, it is recommended that the student take the exams at the conclusion of the course in which they are enrolled. No advantage is gained by delaying the exam. It is required to finish all six qualification exams by the end of the second year of study.

Some students will enter the PhD program with previously acquired expertise in one or more of the required courses. This sometimes happens with students who transfer from other PhD programs or who come from certain foreign countries. Such students may formally petition the chair of the graduate committee to be exempted from the appropriate course and its qualifying exam. The petition must be accompanied by hard evidence (e.g., published research, written testimony from experts, records of equivalent courses, examinations and the grades achieved on them). The graduate committee will make the final judgment on all exemption requests.

Once the written phase of the qualifying process is complete, the student is ready to begin specialized study. By the third year of study, the student must complete the candidacy requirement. The student must form a preliminary thesis committee that includes their adviser and at least two other faculty members. In discussion with the adviser and the preliminary thesis committee, the student will select a topic and a body of literature related to this topic. The student will prepare a one-hour oral presentation related to the topic and a two-page thesis proposal that demonstrates mastery of the selected topic. The oral presentation is designed to expedite specialized study and to provide guidance toward the thesis. The preparatory work for the thesis proposal often becomes the foundation on which the thesis is constructed.

After the student completes the candidacy requirement, work on the thesis begins.

**The dissertation and thesis defense:** The student's dissertation is the single most important requirement for the PhD degree; it must be an original contribution to mathematical knowledge. This is the student's opportunity to conduct significant independent research.

It is the student's responsibility to find a thesis adviser who is willing to guide their research. Since the adviser should be part of the candidacy requirement, the student should have engaged an adviser by the beginning of the third year of study.

Once the department has accepted the dissertation (on the recommendation of the thesis adviser), the student is required to defend their thesis through a presentation accompanied by a question-and-answer period.

For information about preparing the thesis and its abstract as well as the deadlines involved, please consult the following items from the Graduate School of Arts and Sciences: the Doctoral Dissertation Guide (<https://graduateschool.wustl.edu/dissertation/>), the Forms (<https://graduateschool.wustl.edu/forms/>) page, and the Policies and Procedures (<https://graduateschool.wustl.edu/policies-procedures/>) page.

## PhD in Statistics

### Degree Requirements Summary

A total of 72 graduate units are required, consisting of the following:

- 24 required course work units total in fundamental topics and exam fields
- 12 elective course work units
- Three qualifying exams: two in statistics, one in mathematics
- Graduate School Teaching Requirement for PhD Students
- Oral presentation
- Dissertation research, thesis preparation, and defense (30 course work units)

**General requirements:** Completion of the PhD requires four full years of graduate study (72 units), with at least 48 units spent in residence at Washington University. The student must spend at least one academic year as a full-time student; this requirement cannot be met wholly by summer sessions or part-time study. The student may, with departmental permission, transfer a maximum of 24 graduate credits from other universities. The typical course load is 9 credit units per semester. A GPA of B or better is required in graduate course work.

Graduate students in statistics may ordinarily expect up to five years of support. Continuation of support each year is dependent upon normal progress toward the degree and the satisfactory performance of duties. Teaching experience is an increasingly important component of graduate education for students who seek academic employment. The PhD in statistics program provides the opportunity for students to work as Assistants to the Instructor and to learn how to teach technical topics to students with a wide range of backgrounds.

For the well-prepared student, "normal progress" usually means the following:

- At the end of the second year, the student has successfully passed the two statistical qualifying exams associated with Math 5061–5062 and Math 5071–5072 as well as the mathematical qualifying exam associated with Math 5051–5052. They have also completed the courses Math 459 and Math 475.
- At the end of the third year, the student has completed the candidacy requirement.
- At the end of the fourth year, the student has completed the 72-unit course requirement and is making substantial progress on a thesis.

Students must also complete the Teaching Seminar course (L24 597). This course prepares them for both Assistant to the Instructor work and academic teaching duties, which are integral to all scholarly activities. The course spans three semesters, usually starting in the second semester. Each student will have departmental duties (e.g., grading, proctoring) of no more than 15 hours per week as Assistant to the Instructor. Students must also complete a Professional Development course (L24 598).

Please note that the sequence outlined above is for "well-prepared" students. The exact point at which any student enters the sequence depends on their ability and background. When warranted, deviation from the normal sequence is permissible, and a tailored program that fits the student's ability and background will be followed.

**Specific course requirements:** The 72 units of course work must include two basic graduate-level sequences in statistics: Math 5061 Theory of Statistics I–Math 5062 Theory of Statistics II and Math 5071 Advanced Linear Models I–Math 5072 Advanced Linear Models II; the following statistics courses: Math 459 Bayesian Statistics and Math 475 Statistical Computation;

and the following graduate-level mathematics sequence: Math 5051–5052. In exceptional circumstances, departmental permission may be requested to replace one of these sequences with a suitable alternative. The student may also petition the department to waive one or more of these sequences because of work completed previously.

Prerequisites, if needed, are advanced undergraduate courses in abstract linear algebra and real analysis. Such courses would count as 0 credits toward the PhD degree.

It is in each student's best interest to take the three sequences that contain the material covered in the qualifying exams as soon as their individual program allows. Sequels to these courses, at the 500 level, are frequently offered; the qualifying exam courses are generally prerequisites to these 500-level courses.

Prior to finding a research adviser, students are welcome to take any of the Department of Mathematics and Statistics 400- and 500-level statistics electives, and they may also take reading courses with statistics faculty members (Math 500/Math 590). Statistics electives offered by the department include the following:

Code	Title	Units
Math 420	Experimental Design	3
Math 434	Survival Analysis	3
Math 449	Numerical Applied Mathematics	3
Math 456	Topics in Financial Mathematics	3
Math 459	Bayesian Statistics	3
Math 460	Multivariate Statistical Analysis	3
Math 461	Time Series Analysis	3
Math 462	Mathematical Foundations of Big Data	3
Math 475	Statistical Computation	3
Math 495	Stochastic Processes	3
Math 551	Advanced Probability I	3
Math 552	Advanced Probability II	3
Math 523C	Information Theory and Statistics (ESE 523)	3

Prior to finding a research adviser, students may submit a request to the graduate committee to take a course outside of the department. A decision on such requests will be made in consultation with statistics faculty members.

Students are encouraged to take reading courses with department faculty to learn about the research interests of potential advisers. After the student has found a research adviser and a research topic, the adviser may suggest that the student take some additional courses from other departments that may be useful for the student's research program.

Elective courses taken in other departments allow students to supplement their statistics course work with other topics that may be helpful for their research and professional development. Some popular elective courses offered by other departments include the following:

Code	Title	Units
ESE 405	Reliability and Quality Control	3
ESE 407	Analysis and Simulation of Discrete Event Systems	3
ESE 415	Optimization	3
ESE 425	Random Processes and Kalman Filtering	3
ESE 428	Probability	3
ESE 520	Probability and Stochastic Processes	3
ESE 521	Random Variables and Stochastic Processes I	3
ESE 522	Random Variables and Stochastic Processes II	3
ESE 523	Information Theory	3
CSE 511A	Introduction to Artificial Intelligence	3
CSE 514A	Data Mining	3
CSE 517A	Machine Learning	3
CSE 519T	Advanced Machine Learning	3
CSE 541T	Advanced Algorithms	3
MSB M19-550	Randomized Controlled Trials	3
MSB M21-623	Advanced Topics in Biostatistics	3
Econ 5145	Advanced Theoretical Econometrics	3

**Language requirement:** All students must demonstrate proficiency in English.

If English is not the student's native language, they must pass an oral English proficiency exam with a grade of 3 or better. If the student does not score a 3 the first time they take the exam, the director of the English Language Program at the International Office will recommend that the student take one or more classes to improve reading, writing, pronunciation, listening or speaking skills. After the recommended classes have been completed, the student is required to retake the English proficiency exam. Once the student has demonstrated the ability to handle teaching a class (by scoring a 3 or better on the exam), they will qualify for Assistant to the Instructor or Course Instructor duties.

**Qualifying examinations and candidacy requirements:**

The qualifying exam and candidacy requirement constitute two separate requirements. The qualifying exam is a series of three written tests that cover a range of topics; the candidacy requirement is an oral presentation and thesis proposal.

The written tests cover the material in the two basic statistics course sequences, Math 5061–5062 and Math 5071–5072, and in the mathematics sequence Math 5051–5052. Each spring, at the end of the Math 5061–5062 and Math 5071–5072

sequences, all students enrolled in these courses take a two-hour final exam; this exam usually covers the second half of the sequence. Doctoral candidates take an additional one-hour exam that covers the entire sequence. To pass the qualifying exam, the student must pass the three-hour combined exam. In the case of the Math 5051–5052 sequence, to satisfy the qualification examination requirement, the student must pass the final exam for the course with an A- or better.

Because each sequence varies somewhat in content from year to year, it is recommended that the student take each set of exams at the conclusion of the sequence in which they are enrolled. No advantage is gained by delaying the exam for a year. It is desirable to make every effort to finish all three exams by the end of the second year of study.

Some students will enter the PhD program with previously acquired expertise in one or more of the three basic sequences. This sometimes happens with students who transfer from other PhD programs or who come from certain foreign countries. Such students may formally petition the chair of the graduate committee to be exempted from the appropriate course and its qualifying exam. The petition must be accompanied by hard evidence (e.g., published research, written testimony from experts, records of equivalent courses, examinations and the grades achieved on them). The graduate committee will make the final judgment on all exemption requests.

Once the written phase of the qualifying process is complete, the student is ready to begin specialized study. The candidacy requirement is designed to expedite this process. Along with a committee of at least two faculty members, the student selects one major and one minor topic and a body of literature dealing with each. The student then usually spends a semester studying the selected material. At the end of this period, the student demonstrates mastery of the two selected topics by means of satisfactory oral expositions to a faculty committee. One member of this committee will in all likelihood become the student's thesis adviser and may have already agreed to be the adviser. The preparatory work for the presentation often becomes the foundation on which the thesis is constructed.

After the student completes the oral presentation, work on the thesis begins.

**The dissertation and thesis defense:** The student's dissertation is the single most important requirement for the PhD degree; it must be an original contribution to the knowledge of statistics, probability, and/or applied probability. This is the student's opportunity to conduct significant independent research.

It is the student's responsibility to find a thesis adviser who is willing to guide their research. Since the adviser should be part of the oral presentation committee, the student should have engaged an adviser by the beginning of the third year of study.

Once the department has accepted the dissertation (on the recommendation of the thesis adviser), the student is required to defend their thesis through a presentation accompanied by a question-and-answer period.

For information about preparing the thesis and its abstract as well as the deadlines involved, please consult the following items from the Graduate School of Arts and Sciences: the Doctoral Dissertation Guide (<https://graduateschool.wustl.edu/dissertation/>), the Forms (<https://graduateschool.wustl.edu/forms/>) page, and the Policies and Procedures (<https://graduateschool.wustl.edu/policies-procedures/>) page.

## Movement Science

The **Movement Science PhD Program** offers training to investigate and improve movement in people with chronic diseases such as stroke, diabetes, low back pain, Parkinson disease, hip disorders and obesity. Studies span the full spectrum of investigation levels, from fundamental discovery through clinical application.

Our students become part of the next generation of scientists improving human health through movement. They go on to pursue postdoctoral fellowships, academic faculty positions, and careers in industry.

The Movement Science Program is an interdisciplinary training experience housed within the Program in Physical Therapy. Our students — some with and some without clinical backgrounds — learn to be movement scientists in an energetic, dynamic, and collaborative environment.

The program is unique in being an integral part of one of the world's largest biomedical research institutions. Students and faculty collaborate with multiple departments within the School of Medicine, as well as with colleagues on the Danforth Campus in Biomedical Engineering, Psychological & Brain Sciences, Biology, and Social Work. The environment at Washington University provides a strong infrastructure for translational and clinical research. We use the expertise of outstanding researchers from diverse fields to create a world-class training experience, and we take mentoring seriously.

Accepted students receive full tuition remission, a stipend, and health insurance. The Movement Science Program is supported by National Institutes of Health training grant T32HD007434.

Contact:	Jennifer Brown
Phone:	314-273-6067
Email:	<a href="mailto:jennifer.brown@wustl.edu">jennifer.brown@wustl.edu</a>
Website:	<a href="https://pt.wustl.edu/education/phd-in-movement-science">https://pt.wustl.edu/education/phd-in-movement-science</a>

## Faculty

### Chair

**Gammon M. Earhart** (<https://pt.wustl.edu/people/gammon-m-earhart-pt-phd-fapta/>)

Professor  
PhD, Washington University  
Neural control of locomotion in people with Parkinson's disease

### Professors

**B. Ruth Clark** (<https://pt.wustl.edu/people/b-ruth-clark-pt-phd/>)

PhD, Saint Louis University  
Promotion of nutrition and exercise in urban residents

**Marcie Harris-Hayes** (<https://pt.wustl.edu/people/marcie-harris-hayes-pt-dpt-msci/>)

DPT, Washington University in St. Louis  
Rehabilitation research for orthopaedic conditions

**Mary K. Hastings**

DPT, Washington University in St. Louis  
Foot and ankle injury and recovery

**Joseph W. Klaesner** (<https://pt.wustl.edu/people/joseph-w-klaesner-phd/>)

PhD, Vanderbilt University  
Rehabilitation engineering

**Catherine E. Lang** (<https://pt.wustl.edu/people/catherine-lang-pt-phd-fapta/>)

Associate Director, Movement Science Program  
PhD, Washington University  
Stroke recovery and rehabilitation; neurorehabilitation

**Michael J. Mueller** (<https://pt.wustl.edu/people/michael-j-mueller-pt-phd-fapta/>)

PhD, Washington University  
Metabolic and movement factors in people with diabetes mellitus

**Susan B. Racette** (<https://pt.wustl.edu/people/susan-b-racette-phd/>)

PhD, University of Chicago  
Dietary and exercise interventions for health promotion and disease prevention

**Linda R. Van Dillen** (<https://pt.wustl.edu/people/linda-van-dillen-pt-phd-fapta/>)

PhD, Washington University  
Musculoskeletal pain problems in the low back, hip and neck

### Assistant Professors

**Michael Harris** (<https://pt.wustl.edu/people/michael-d-harris-phd/>)

PhD, University of Utah  
Whole body and joint-level orthopaedic biomechanics

**Jacob G. McPherson** (<https://pt.wustl.edu/people/jacob-g-mcpherson-phd/>)

PhD, Northwestern University  
Sensorimotor neural plasticity and neurological injury

**Laura McPherson** (<https://pt.wustl.edu/people/laura-mcpherson-pt-dpt-phd/>)

PhD, Northwestern University  
Neurological injury and neurorehabilitation

**Gretchen A. Meyer** (<https://pt.wustl.edu/people/gretchen-a-meyer-phd/>)

PhD, University of California, San Diego  
Mechanical and cellular contributors to skeletal muscle disease

## Degree Requirements

### PhD in Movement Science

Students in the Movement Science Program complete core course work, electives, original laboratory research, and a dissertation.

#### Degree Requirements

Students must complete 48 credit units\*:

- 28 units of required course work
- 20 units of elective course work

\* Students with master's or doctoral degrees can receive up to 12 units of transfer credit.

The following elements are also required of all students:

- **Qualifying examination:** Part one of the qualifying exam requires the student to develop a research proposal pertinent to the projected area of dissertation research that is based on a question/problem provided by the student's mentor(s). Part two of the qualifying exam is an oral examination that consists of a presentation of the proposal by the student followed by a question-and-answer period with the faculty reviewers.
- **Laboratory research:** Students will develop, implement and complete original laboratory research appropriate for a doctoral dissertation.
- **Doctoral dissertation:** Students will successfully provide an oral defense of their dissertation proposal, complete a written doctoral dissertation, and defend an oral presentation of the doctoral dissertation.

On average, students complete the degree in four and a half years.

## Music

The Department of Music offers programs of study leading to the Doctor of Philosophy (PhD) in Music and the Master of Arts (AM) in Music, with emphasis in either musicology or music theory. Each graduate program combines a course of advanced studies

in one area of music studies with supporting studies in related fields of music. The number of graduate students admitted each year is small so that each student is assured individual attention. There is traditionally a close rapport and mutually supportive interaction among graduate students in all areas of study.

The **AM and PhD programs in musicology** offer concentrations in historical musicology and ethnomusicology. Department faculty interests cover all eras of European art music, American popular musics, film and theatre music, jazz, and African and African diasporic musics. Methodological approaches cover a range of critical perspectives, placing music within its cultural and historical contexts and developing the student's ability to think and write about music and music-making. Intensive study in music theory is a required component of the program, and diverse opportunities for performance are offered as well.

The **AM and PhD programs in music theory** focus on the creative analysis and critical examination of assumptions about music and musical discourse. The graduate program prepares students to undertake research in musical analysis and in the language and methodology of music theory. Preparation includes guiding each student in developing their own modes of thought and expression. Faculty interests include improvisation and intermedia, texture and form, music cognition and computational modeling, composition, Schenker, and the interplay of text and music in German art song.

Contact: Jessica Flannigan  
Phone: 314-935-5566  
Email: [flanniganj@wustl.edu](mailto:flanniganj@wustl.edu)  
Website: <http://music.wustl.edu/graduate>

## Faculty

### Chair

**Patrick Burke** (<https://music.wustl.edu/people/patrick-burke/>)

PhD, University of Wisconsin

### Endowed Professors

**Todd Decker** (<https://music.wustl.edu/people/todd-decker/>)

Paul Tietjens Professor of Music  
PhD, University of Michigan

**Dolores Pesce** (<https://music.wustl.edu/people/dolores-pesce/>)

Avis Blewett Professor of Music  
PhD, University of Maryland

### Professor

**Jeffrey Kurtzman** (<https://music.wustl.edu/people/jeffrey-kurtzman/>)

PhD, University of Illinois



## Associate Professors

**Patrick Burke** (<https://music.wustl.edu/people/patrick-burke/>)

PhD, University of Wisconsin

**Ben Duane** (<https://music.wustl.edu/people/ben-duane/>)

PhD, Northwestern University

**Robert Snarrenberg** (<https://music.wustl.edu/people/robert-snarrenberg/>)

PhD, University of Michigan

**Christopher Stark** (<https://music.wustl.edu/people/christopher-stark/>)

DMA, Cornell University

**Alexander Stefaniak** (<https://music.wustl.edu/people/alexander-stefaniak/>)

PhD, Eastman School of Music

**Paul Steinbeck** (<https://music.wustl.edu/people/paul-steinbeck/>)

PhD, Columbia University

## Assistant Professors

**Lauren Eldridge Stewart** (<https://music.wustl.edu/people/lauren-eldridge-stewart/>)

PhD, University of Chicago

**Esther Kurtz** (<https://music.wustl.edu/people/esther-kurtz/>)

PhD, Brown University

## Professor of the Practice

**William Lenihan** (<https://music.wustl.edu/people/william-lenihan/>)

BMus, University of Missouri-Columbia

## Senior Lecturers

**Christine Armistead** (<https://music.wustl.edu/people/christine-armistead/>)

MM, Washington University

**Amanda Kirkpatrick** (<https://music.wustl.edu/people/amanda-kirkpatrick/>)

MM, University of Missouri-Columbia

## Lecturer

**Christopher Douthitt** (<https://music.wustl.edu/people/christopher-douthitt/>)

MFA, Princeton University

## Professors Emeriti

**Hugh Macdonald**

PhD, Cambridge University

**Craig Monson**

PhD, University of California, Berkeley

**Robert Wykes**

DMA, University of Illinois

## Degree Requirements

### Master of Arts in Music (Musicology)

The Master of Arts in musicology requires 36 units of graduate study, including 12 units of music history and bibliography, 6 units of music theory, 18 units of electives, keyboard proficiency, reading knowledge of one foreign language, a written general examination, and a thesis.

### PhD in Music (Musicology)

The PhD degree in musicology requires a total of 72 units of graduate study: 33 units of music history and bibliography, 12 units of music theory, 6 units outside music, and 20 units of electives and dissertation research. Also required are keyboard proficiency, reading knowledge of two foreign languages (German and either French, Italian, Latin, or a substitute, according to the student's needs), a written general examination, six to eight semesters of mentored teaching, written and oral qualifying examinations (which occur after the completion of 60 units), the dissertation, and the final oral defense of the dissertation. Students who have completed a master's degree at another institution may receive up to 24 units of transfer credit toward the PhD.

### Master of Arts in Music (Music Theory)

The Master of Arts in music theory requires 36 units of graduate study, including 15 units of music theory, 9 units of music history and bibliography, 12 units of electives, keyboard proficiency, reading knowledge of one foreign language, a written general examination, and a thesis.

### PhD in Music (Music Theory)

The PhD degree in music theory requires a total of 72 units of graduate study: 30 units of music theory, 15 units of music history and bibliography, 6 units of composition, 6 units outside music, 6 units of qualifying projects, and 9 units of electives or dissertation research. Also required are keyboard proficiency, reading knowledge of two foreign languages (German and either French or Italian; a computer language may be substituted for the second language, according to the student's needs), a written general examination, six to eight semesters of mentored teaching, the dissertation, and the final oral defense of the dissertation. Students who have completed a master's degree at another institution may receive up to 24 units of transfer credit toward the PhD.

## Nursing Science

The Department of Nursing Science is a collaboration between Goldfarb School of Nursing at Barnes-Jewish College and the Graduate School at Washington University. The Goldfarb School of Nursing emphasizes the reciprocation among research, clinical practice, and teaching based on the belief that clinical practice advises research, research advises clinical practice, and both research and clinical practice advise teaching. The school's commitment to the preparation of the next generation of nurse scientists is reflected in the strong research emphasis of the PhD program in the science of nursing.

The goal of the PhD program is to educate nurse scientists whose career goals include conducting nursing research. Students bring a unique combination of nursing knowledge and clinical experiences to doctoral study, and these serve as the basis for the development of programs of study that are both compatible with the core doctoral curriculum and individualized to allow for the gaining of in-depth knowledge in a specialized area of study. The PhD in Nursing Science provides a solid foundation for graduates to pursue rigorous programs of nursing research that are clinically significant and contribute to the advancement of nursing science.

Contact: Rebecca Boettcher  
Phone: 314-273-5449  
Email: rebecca.boettcher@barnesjewishcollege.edu  
Website: <https://www.barnesjewishcollege.edu/phd>

## Degree Requirements

### PhD in Nursing Science

The PhD in Nursing Science requires 62 graduate units of course work and research. Students will complete four core areas of study plus a required minor/cognate and a dissertation. The four core areas are Nursing Science, Research Methods, Statistics, and Mentored Research Experience. Students can choose a minor in informatics, clinical investigation, or dissemination and implementation science, or they may propose a customized track that is a match with nursing faculty research areas and that complements the applicant's nursing area of research. Courses in the Nursing Science and Research Methods core areas will be taught by faculty at Goldfarb School of Nursing. Courses in the Statistics core and the minor courses will be taught by faculty at Washington University. The Mentored Research Experience will be taught by scientists at both Goldfarb School of Nursing and Washington University. A Mentored Teaching Experience is also required.

The program is designed to be completed in three years of full-time study. This generally involves five semesters of course work (50 units) followed by a preliminary examination, a qualifying examination, and three semesters of dissertation work (12 units). Students may be eligible for fourth- and fifth-year options if these are necessary for the completion of the proposed dissertation work.

## Faculty

### Program Chair

**Bernadette Henrichs** (<https://www.barnesjewishcollege.edu/Employee-Search-Directory/?id=47>)

Interim Director, PhD in Nursing Science Program  
Professor, Certified Registered Nurse Anesthetist concentration, Doctor of Nursing Practice program  
Director, Certified Registered Nurse Anesthetist Education and Research, Washington University Department of Anesthesia  
PhD, Saint Louis University

### Associate Dean for Research

**Dominic Reeds**

Associate Dean for Research, Goldfarb School of Nursing  
Associate Director, Washington University's Nutrition and Obesity Research Center and Center for Diabetes Translation Research  
Professor, Geriatrics and Nutritional Science Division, Washington University School of Medicine  
Director, Barnes-Jewish Hospital Nutrition Support Service  
MD, Texas Tech University Health Sciences Center

## Faculty

**Deborah Birk**

Assistant Professor  
Director, Health Systems & Population Health Leadership concentration, Doctor of Nursing Practice program  
PhD, University of Missouri

**Maryann Bozette** (<https://www.barnesjewishcollege.edu/Employee-Search-Directory/?id=206>)

Associate Professor  
PhD, University of Washington–Seattle

**Mary Curtis** (<https://www.barnesjewishcollege.edu/Employee-Search-Directory/?id=22>)

Professor  
Director, Adult Gerontology Primary Care Nurse Practitioner concentration, Doctor of Nursing Practice program  
PhD, Saint Louis University

**Sarah Farabi** (<https://www.barnesjewishcollege.edu/Employee-Search-Directory/?id=186>)

Assistant Professor  
PhD, University of Illinois–Chicago

**Judy Frain** (<https://www.barnesjewishcollege.edu/Employee-Search-Directory/?id=39>)

Associate Professor  
PhD, University of Missouri–St. Louis

**Heidi Holtz**

Assistant Professor  
PhD

**James Kennett** (<https://www.barnesjewishcollege.edu/Employee-Search-Directory/?id=181>)

Assistant Professor  
PhD, University of San Diego

**Pamela Newland** (<https://www.barnesjewishcollege.edu/Employee-Search-Directory/?id=78>)

Associate Professor  
PhD, University of Missouri–Columbia

**MaryAnn Niemeyer**

Assistant Professor  
PhD, University of Missouri–Columbia

**Tamara Otey** (<https://www.barnesjewishcollege.edu/Employee-Search-Directory/?id=140>)

Assistant Professor  
PhD, Indiana University

**Amy Piontek**

Assistant Professor  
PhD, Southern Illinois University–Carbondale

**Nancy Ridenour** (<https://www.barnesjewishcollege.edu/Employee-Search-Directory/?id=167>)

President and Professor, Goldfarb School of Nursing  
PhD, Texas Tech University

**Mayola Rowser**

Dean and Professor, Goldfarb School of Nursing  
PhD, University of Tennessee Health Science Center

**Lisa Sittler**

Associate Professor  
PhD

**Judy Smith**

Assistant Dean and Professor, Undergraduate Nursing Program  
PhD, Saint Louis University

**Po-Yin Yen** (<https://www.barnesjewishcollege.edu/Employee-Search-Directory/?id=166>)

Associate Professor, Goldfarb School of Nursing  
Associate Professor, Institute of Informatics, Washington University School of Medicine  
PhD, Columbia University

## Research

**Deborah Birk, PhD, RN, MHA, NEA-BC**, is the Director of the Health Systems and Population Health Leadership concentration in the DNP program and Assistant Professor at Goldfarb School of Nursing. Dr. Birk's program of research involves executive nursing leadership and quality of nurse leaders in health systems.

*Research interests:* Executive nursing leadership, health systems, population health, health policy, women's health, nursing curriculum, evidence-based practice, quality improvement in healthcare, and emotional intelligence and resilience in healthcare leaders

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**Maryann Bozzette, PhD, RN, CLC**, is an Associate Professor at Goldfarb School of Nursing. Dr. Bozzette's program of research is focused on the perceptual and social development of premature infants, developmentally supportive care, and parent-infant interaction.

*Research interests:* Sensory interventions for premature infants, biomedical measures, observational research, attachment, breastfeeding high-risk infants, and early communication behaviors of premature infants

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**Mary Curtis, PhD, DNP, RN**, is the Director of the Adult Gerontology Primary Care Nurse Practitioner concentration in the MSN program and Professor at Goldfarb School of Nursing. Dr. Curtis is a certified adult and family care nurse practitioner whose clinical practice focuses on adult primary care with an emphasis on end-of-life, palliative, and hospice care.

*Research interests:* Injury prevention interventions, quality, safety, end-of-life care, health promotion, and action research/scholarship of teaching and learning

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**Sarah Farabi PhD, RN**, is an Assistant Professor at Goldfarb School of Nursing. Dr. Farabi's program of research is focused on understanding the biobehavioral mechanisms underlying obesity. She has a particular interest in the influence of diet and sleep on metabolic disturbances.

*Research interests:* Obesity, diet, sleep, diabetes, nurse-led interventions, and pregnancy

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**Judy Frain, PhD, RN**, is an Associate Professor at Goldfarb School of Nursing. Dr. Frain's program of research is focused on improving quality of life in older adults, with an emphasis on those living with HIV.

*Research interests:* Symptom science, self-management of chronic disease, quality of life, and examining the intersection of aging and chronic disease

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**Bernadette Henrichs, PhD, CRNA, CCRN, CHSE**, is the Interim Director of the PhD in Nursing Science program, the Director of the Nurse Certified Registered Nurse Anesthetist (CRNA) concentration in the DNP program, and Professor at Goldfarb School of Nursing. Dr. Henrichs' research is focused on improving patient safety in surgical patients, including the management of life-threatening emergencies that may occur in the anesthetized patient and decreasing postoperative morbidity and mortality. Dr. Henrichs also conducts research using simulation to improve graduate-level teaching.

*Research interests:* Patient safety in the surgical patient, life-threatening emergencies in the anesthetized patient, morbidity and mortality in surgical patients, simulation in teaching, civility in the operating room, and patient handoffs

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**Heidi Holtz PhD, RN**, is an Assistant Professor at Goldfarb School of Nursing. Dr. Holtz was a research fellow at Johns Hopkins Berman Institute of Bioethics. Dr. Holtz's program of research focuses on nursing students' experiences and the consequences of faculty incivility, with a special interest in researching the construct of moral resilience and applying that research to develop innovative approaches to foster moral resilience in healthcare environments.

*Research interests:* Civility in nursing, moral resilience among healthcare professionals, and burnout among healthcare professionals

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**James R. Kennett, PhD, RN**, is an Assistant Professor at Goldfarb School of Nursing. Dr. Kennett's program of research is focused on living with chronic illness and improving healthcare outcomes.

*Research interests:* Theory development, chronic illness, the patient/provider relationship, collaborative research, engineering principles used in healthcare, communication patterning, behavior patterning, and the application of intermodernism

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**Pamela Newland, PhD, RN, CMSRN**, is an Associate Professor at Goldfarb School of Nursing. Dr. Newland is a nurse scientist with expertise in symptom science and self-management in persons with disabilities and chronic conditions.

*Research interests:* Designing self-management interventions, validating patient-reported outcome measures, shared decision making, examining biobehavioral and quality improvement, promoting health and well-being, mobile health technology, and mixed methods

**MaryAnn Niemeyer PhD, MSN, RN-BC**, is an Assistant Professor at Goldfarb School of Nursing. Dr. Niemeyer's program of research investigates the improvement of safety and quality of nursing practice and health care. She is also interested in simulation research for the improvement of nursing practice, especially regarding practice and decision making.

*Research interests:* Healthcare simulation research, failure to rescue research, nursing care handoffs, medical errors, clinical outcomes, and principles and techniques to promote patient health, communication, safety, comfort, and care quality

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**Amy Piontek, PhD, RN, CHES**, is an Assistant Professor at Goldfarb School of Nursing. Dr. Piontek's program of research is on the improvement of patient and caregiver self-efficacy in managing end-of-life symptoms through education and early referral to palliative and hospice programs.

*Research interests:* Creating effective virtual and simulation learning environments for nursing students, exploring technology to improve student engagement, and designing outreach platforms for health educators to educate the general population about end-of-life and palliative care options

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**Dominic Reeds, MD**, is the Associate Dean for Research at Goldfarb School of Nursing and the Associate Director of Washington University's Nutrition and Obesity Research Center and Center for Diabetes Translation Research. He is a Professor in the Geriatrics and Nutritional Science Division at Washington University School of Medicine, and he is Director of the Barnes-Jewish Hospital Nutrition Support Service. Dr. Reeds is Director of Washington University's KL2 program and Co-Director of the Master of Science in Clinical Investigation. His research focuses on the pathogenesis of HIV-associated diabetes and obesity.

*Research interests:* Clinical nutrition; diabetes and metabolism; prevention, pathogenesis, and management of cardiometabolic risk factors, including obesity, hypertension, and HIV; and nurse-led implementation science programs for the management of hypertension and diabetes

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**Nancy Ridenour, PhD, APRN, FAAN**, is the President of Goldfarb School of Nursing. Dr. Ridenour's program of research is focused on increasing health equity using health policy, population health and primary care.

*Research interests:* Advanced practice nursing, access and quality in primary care, underserved populations, global health, and health policy

**Judy Smith PhD, RN, GCNS-BC**, is the Assistant Dean of the Bachelor of Science in Nursing Program at Goldfarb School of Nursing. Dr. Smith's program of applied research addresses adults who are impacted by aging and its accompanying losses utilizing a biopsychosocial approach.

*Research interests:* Loneliness, dementia, and delirium and how these common geriatric syndromes impact the holistic health of older adults

**Po-Yin Yen, PhD, RN**, is an Associate Professor at Goldfarb School of Nursing and an Associate Professor of Medicine in the Division of General Medical Sciences at Washington University School of Medicine. Dr. Yen's program of research is focused on applied clinical informatics research to promote a user-friendly health IT environment for clinicians and patients.

*Research interests:* Clinical informatics, usability, technology acceptance, human-computer interaction, user-centered design, mixed methods, literature mining, data visualization, workflow analysis, and time and motion study

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## Courses

Visit online course listings to view semester offerings for L88 NrsSci (<https://courses.wustl.edu/CourseInfo.aspx?sch=L&dept=L88&crslvl=1:5>).

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### L88 NrsSci 510 Symptom Science and Precision Healthcare: Omics and Big Data

This course focuses on symptom science as a major branch of nursing research as it relates to precision healthcare. Precision healthcare considers individual variability in genes, environment, and lifestyles. An introduction to the omic sciences, big data science, and their relationships is also provided.  
Credit 3 units.

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### L88 NrsSci 511 Philosophical and Theoretical Underpinnings of Nursing Science

This course explores the evolution, assumptions, and principal themes that underpin philosophies of nursing science and their influence on knowledge development for nursing practice and nursing theory. The interrelationships among theoretical perspectives, theoretical thinking, scientific inquiry, and knowledge development in nursing will be discussed. The relationship of scientific integrity and bioethics to the scientific method will be discussed.  
Credit 3 units.

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### L88 NrsSci 512 Literature Critique and Synthesis

The focus of this course is on synthesizing evidence from the published research literature to determine the state of knowledge about a selected research topic and to guide a research plan. The course emphasizes the processes of critiquing, analyzing, and synthesizing existing research in order to draw useful conclusions or to make decisions about the topic, problem, or research plan. Prerequisite: L88 510.  
Credit 3 units.

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### L88 NrsSci 513 Dissemination and Implementation Science

This course focuses on dissemination and implementation research. Strategies underlying the creation, transmission, and reception of information will be explored. The goal of this course is to bridge the gap among clinical research, everyday practice, and public health by building a knowledge base to improve population health. Prerequisite: L88 512.  
Credit 3 units.

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### L88 NrsSci 514 Grant Writing and Scientific Review

This course focuses on developing and evaluating fundable research applications. Grant-writing and scientific review processes are emphasized, including identifying various types of funding mechanisms, developing successful grant applications, and reviewing research proposals. Strategies for developing high impact scientific protocols and a feasible research budget will be discussed. Opportunities to conduct peer reviews of grant applications will be provided. Prerequisite: L88 513.  
Credit 3 units.

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### L88 NrsSci 515 Interdisciplinary Science and the Innovative Nurse

This course provides an educational opportunity to understand diverse disciplines with their specific perspective in conducting research. The emphasis is placed on understanding key scientific concepts and methodologies. The goal is to connect and integrate different schools of thought and demonstrate how the disciplines of science come together in innovative ways to identify and solve scientific challenges. Preparation, training, support, challenges, and roles of the nurse scientist are also explored. Related topics include how to advance a career as a nurse scientist with a focus on building a research trajectory, obtaining funding and becoming an innovative researcher who is able to identify trends in emerging science. Discussions will focus on integrating biologic and behavioral factors to achieve translational bench-to-bedside nursing science. Prerequisites: L88 513 and L88 534.  
Credit 3 units.

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### L88 NrsSci 520 Research I: Research Designs and Measurements for Scientific Inquiry: Quantitative Methods

The goal of this course is to deepen the understanding of scientific inquiry pertaining to quantitative methods in nursing research. This course emphasizes research questions/hypotheses, frameworks, designs, methodology, and analysis. Methods of dissemination of research findings in symptom science are examined.  
Credit 3 units.

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### L88 NrsSci 521 Research II: Research Designs and Measurement for Scientific Inquiry: Qualitative Methods

This is an introductory course in qualitative research, with particular focus on the health sciences. The course focuses on the study of traditions and methods, scientific issues, techniques of data collection, analysis, and interpretation. Emphasis is given to the contribution of qualitative research in expanding nursing knowledge.  
Credit 3 units.

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**L88 NrsSci 522 Research III: Research Designs and Measurement for Scientific Inquiry: Psychometrics**

This course offers information on psychometric theories. The application of these theories in constructing and evaluating measurements in nursing research is presented. Relevant course content includes statistical techniques to evaluate measurements, such as reliability and validity tests. This course also provides an introduction to the issues that arise when writing/selecting questions for the psychosocial instruments. The focus is on examining the logic of measurement in standardized survey administration and selected techniques for testing scale items. Prerequisite: L88 520.

Credit 3 units.

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**L88 NrsSci 523 Research IV: Research Designs and Measurement for Scientific Inquiry: Biobehavioral Measurement**

This course focuses on integrating biological and behavioral measurement. Emphasis is placed on understanding ways to optimize measurement of study variables using both biological and behavioral measures. The focus is on strengthening behavioral measures, explaining behavioral data and elucidating underlying mechanisms by employing biophysical measures. Prerequisite: L88 522.

Credit 3 units.

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**L88 NrsSci 524 Research V: Information Science: Data Abstraction and Validation**

Health informatics intersects information technology, computer science, and healthcare. The focus of this course -- big data science, core concepts, and technologies of information science -- will be explored. This includes data standards, data abstraction, and data validity verification relevant to database development, data analytics, and data security and privacy. Predictive research models will be developed to effectively improve clinical practice, inform policy, and address population health concerns. Prerequisites: L88 523 and M19 530.

Credit 3 units.

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**L88 NrsSci 530 Mentored Research Experience I**

This course is the first in a five serial mentored research course series designed to provide one-to-one mentoring for students to have hands-on research experiences and to gain the skills necessary to conduct interdisciplinary research. Students will be paired with a nursing mentor and a non-nursing mentor. In courses I and II, students will learn about a chosen research project led by the non-nursing mentor and work with that person's research team. In courses III and IV, under the supervision of both the nursing and non-nursing mentors, students will identify a scientific challenge that is significant to nursing. Students will then develop a research plan that integrates methods from a non-nursing discipline to address the challenges. In course V, students will work closely with the nursing and non-nursing mentors to develop their dissertation research proposal.

Credit 1 unit.

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**L88 NrsSci 531 Mentored Research Experience II**

This course is the second in a five serial mentored research course series designed to provide one-to-one mentoring for students to have hands-on research experiences and to gain the skills necessary to conduct interdisciplinary research. Students will be paired with a nursing mentor and a non-nursing

mentor. In courses I and II, students will learn about a chosen research project led by the non-nursing mentor and work with that person's research team. In courses III and IV, under the supervision of both the nursing and non-nursing mentors, students will identify a scientific challenge that is significant to nursing. Students will then develop a research plan that integrates methods from a non-nursing discipline to address the challenges. In course V, students will work closely with the nursing and non-nursing mentors to develop their dissertation research proposal. Prerequisite: L88 530.

Credit 1 unit.

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**L88 NrsSci 532 Mentored Research Experience III**

This course is the third in a five serial mentored research course series designed to provide one-to-one mentoring for students to have hands-on research experiences and to gain the skills necessary to conduct interdisciplinary research. Students will be paired with a nursing mentor and a non-nursing mentor. In courses I and II, students will learn about a chosen research project led by the non-nursing mentor and work with that person's research team. In courses III and IV, under the supervision of both the nursing and non-nursing mentors, students will identify a scientific challenge that is significant to nursing. Students will then develop a research plan that integrates methods from a non-nursing discipline to address the challenges. In course V, students will work closely with the nursing and non-nursing mentors to develop their dissertation research proposal. Prerequisite: L88 531.

Credit 1 unit.

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**L88 NrsSci 533 Mentored Research Experience IV**

This course is the fourth in a five serial mentored research course series designed to provide one-to-one mentoring for students to have hands-on research experiences and to gain the skills necessary to conduct interdisciplinary research. Students will be paired with a nursing mentor and a non-nursing mentor. In courses I and II, students will learn about a chosen research project led by the non-nursing mentor and work with that person's research team. In courses III and IV, under the supervision of both the nursing and non-nursing mentors, students will identify a scientific challenge that is significant to nursing. Students will then develop a research plan that integrates methods from a non-nursing discipline to address the challenges. In course V, students will work closely with the nursing and non-nursing mentors to develop their dissertation research proposal. Prerequisite: L88 532.

Credit 1 unit.

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**L88 NrsSci 534 Mentored Research Experience V**

This course is the fifth and final in a five serial mentored research course series designed to provide one-to-one mentoring for students to have hands-on research experiences and to gain the skills necessary to conduct interdisciplinary research. Students will be paired with a nursing mentor and a non-nursing mentor. In courses I and II, students will learn about a chosen research project led by the non-nursing mentor and work with that person's research team. In courses III and IV, under the supervision of both the nursing and non-nursing mentors, students will identify a scientific challenge that is significant to nursing. Students will then develop a research plan that integrates methods from a non-nursing discipline to address the challenges. In course V, students will work closely with the nursing and non-nursing mentors to develop their dissertation research proposal. Prerequisite: L88 533.

Credit 1 unit.

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### L88 NrsSci 550 Dissertation

Original investigation research experience designed by the student to prepare for completing the proposed research, public defense, and publication of a dissertation as based on the student's substantive areas of interest and program of research. Offered every semester.

Credit variable, maximum 4 units.

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## Philosophy

The Washington University Philosophy Department houses two PhD programs: a program in Philosophy — with strengths in philosophy of mind, epistemology, political philosophy, philosophy of science, metaphysics, and the history of philosophy — and a special interdisciplinary program in Philosophy-Neuroscience-Psychology (PNP) that maintains a core faculty in philosophy and draws on Washington University's exceptional psychological and neuroscience programs.

The department accepts about 10% of the applicants to these PhD programs and maintains about 25 students in both programs. We are especially open to interdisciplinary work, and we are committed to providing methodologically and substantively broad training. We welcome applicants from a wide range of backgrounds, but the most successful applicants have evidence of philosophical talent and promise.

Phone: 314-935-6670  
Email: [philosophy@wustl.edu](mailto:philosophy@wustl.edu)  
Website: <http://philosophy.artsci.wustl.edu/graduate>

## Faculty

### Chair

**Ron Mallon** (<http://philosophy.artsci.wustl.edu/people/ron-mallon/>)

Chair, Department of Philosophy  
Director, Philosophy-Neuroscience-Psychology Program  
PhD, Rutgers University

### Professors

**Rebecca "Becko" Copenhaver** (<https://philosophy.wustl.edu/people/becko-copenhaver/>)  
PhD, Cornell University

**Carl Craver** (<https://philosophy.wustl.edu/people/carl-f-craver/>)  
PhD, University of Pittsburgh

**John Heil** (<https://philosophy.wustl.edu/people/john-heil/>)  
PhD, Vanderbilt University

**Jonathan Kvanvig** (<https://philosophy.wustl.edu/people/jonathan-kvanvig/>)

PhD, University of Notre Dame

**Matt McGrath** (<https://philosophy.wustl.edu/people/matt-mcgrath/>)

PhD, Brown University

**Casey O'Callaghan** (<https://philosophy.wustl.edu/people/casey-ocallaghan/>)

PhD, Princeton University

**Paula "Lori" Watson** (<https://philosophy.wustl.edu/people/lori-watson/>)

PhD, University of Illinois-Chicago

**Kit Wellman** (<https://philosophy.wustl.edu/people/kit-wellman/>)

PhD, University of Arizona

## Associate Professors

**Anne Margaret Baxley** (<https://philosophy.wustl.edu/people/anne-margaret-baxley/>)

Director of Undergraduate Studies  
PhD, University of California, San Diego

**Eric Brown** (<https://philosophy.wustl.edu/people/eric-brown/>)

PhD, University of Chicago

**Allan Hazlett** (<https://philosophy.wustl.edu/people/allan-hazlett/>)

Director of Graduate Studies  
PhD, Brown University

**Brett Hyde** (<https://philosophy.wustl.edu/people/brett-hyde/>)

PhD, Rutgers University

**Anya Plutynski** (<https://philosophy.wustl.edu/people/anya-plutynski/>)

PhD, University of Pennsylvania

## Assistant Professors

**Zoe Jenkin** (<https://philosophy.wustl.edu/people/zoe-jenkin/>)

PhD, Harvard University

**Jake Quilty-Dunn** (<https://philosophy.wustl.edu/people/jake-quilty-dunn/>)

PhD, The Graduate Center, CUNY

## Lecturers

**Anne Baril** (<https://philosophy.wustl.edu/people/anne-baril/>)

PhD, University of Arizona

**Janella Baxter** (<https://philosophy.wustl.edu/people/janella-baxter/>)

PhD, University of Illinois at Chicago

**Jason Gardner** (<https://philosophy.wustl.edu/people/jason-gardner/>)

PhD, Washington University in St. Louis

**Nicholas Koziolk** (<https://philosophy.wustl.edu/people/nicholas-koziolk/>)

PhD, University of Chicago

**Boyd Millar** (<https://philosophy.wustl.edu/people/boyd-millar/>)

PhD, University of Toronto

## McDonnell Postdoctoral Fellows

**Riana Betzler** (<https://philosophy.wustl.edu/people/riana-betzler/>)

PhD, HPS Cambridge

**André Sant'Anna** (<https://philosophy.wustl.edu/people/andre-santanna/>)

PhD, University of Otago

**Henry Schiller** (<https://philosophy.wustl.edu/people/henry-schiller/>)

PhD, University of Texas at Austin

## Professors Emeriti

**Dennis DesChene** (<https://philosophy.wustl.edu/people/dennis-des-chene/>)

PhD, Stanford University

**J. Claude Evans** (<https://philosophy.wustl.edu/people/claude-evans/>)

PhD, State University of New York–Stony Brook

**Lucian W. Krukowski** (<https://philosophy.wustl.edu/people/lucian-krukowski/>)

PhD, Washington University

**Jerome P. Schiller** (<https://philosophy.wustl.edu/people/jerome-schiller/>)

PhD, Harvard University

**Mark Rollins** (<https://philosophy.wustl.edu/people/mark-rollins/>)

PhD, Columbia University

**Joseph S. Ullian** (<https://philosophy.wustl.edu/people/joe-ullian/>)

PhD, Harvard University

## Degree Requirements

### PhD in Philosophy and Philosophy-Neuroscience- Psychology

Completion of the Philosophy and PNP PhD programs requires the following:

1. Regular attendance at departmental colloquium talks
2. Completion of course work, which is expected before the end of the third year
3. Completion of four semesters of Mentored Teaching Experience, normally during the second and third years
4. Completion of six qualifying examinations, normally before the end of the third year
5. Satisfactory participation in the dissertation seminar, starting during the fourth year
6. Preparation and defense of a dissertation prospectus, normally before the end of the fourth year
7. Satisfactory presentation of a departmental colloquium talk
8. Preparation and defense of a dissertation
9. Fulfillment of Graduate School requirements

Students on special fellowship (e.g., Olin, Chancellor's) are subject to the same requirements as other PhD students.

The Graduate School's Policies & Procedures site (<https://graduateschool.wustl.edu/policies-procedures/>) includes information about taking leaves of absence as well as study or research in absentia.

We use the Philosophy and PNP Graduate Programs Requirements Checklist (<https://wustl.app.box.com/s/0tl5reitesv60bdkclrm1gt3gcmalmr/>) to keep track of student progress.

Students who entered the program prior to 2020 are not subject to all of these requirements; contact the director of graduate studies for details.

## Additional Information

For additional information, visit the Department of Philosophy's Graduate Program Requirements webpage (<https://philosophy.wustl.edu/graduate-program-requirements/>). Please contact the department for further details.

## Physics

The Department of Physics offers **Master of Arts (AM) and Doctor of Philosophy (PhD) programs in Physics**. Research in this department covers a wide area of experimental and theoretical physics and benefits from close contacts with nuclear and inorganic chemists in the chemistry department, planetary scientists in the earth and planetary sciences department, applied scientists in the McKelvey School of Engineering and the Institute of Materials Science & Engineering, and biological scientists both on the Danforth Campus and at the School of Medicine. The department is a major participant in the McDonnell Center for the Space Sciences and the Institute of Materials Science & Engineering.

Experimental research areas include the following:



- Astrophysics (observations of cosmic rays, gamma rays, X-rays, dark matter detection, high-precision tests of gravity)
- Space sciences (laboratory analysis of meteorites, stardust, interplanetary dust particles)
- Condensed matter and materials physics (graphene and other two-dimensional atomic crystals, quantum information and atomic physics with condensed matter devices, nanostructured materials, metallic glasses and liquids, magnetism and superconductivity, high-pressure physics, nuclear magnetic resonance)
- Biophysics (computational neurophysics, systems cell biology).

Theoretical research areas include the following:

- Biophysics (nonequilibrium dynamics in biological cells, theory of the microbiome)
- Condensed matter physics (strongly correlated electron systems, topological phases, excited states of many-electron systems, density functional theory and glasses)
- Elementary particle physics (astroparticle physics, dark matter, theoretical cosmology, strong interactions, non-Hermitian Hamiltonians, quark physics beyond the Standard Model)
- Nuclear theory (nuclear matter, correlations in nuclei).

Students are usually admitted to the PhD program rather than the AM program. They spend their first two years taking graduate courses, finding a dissertation adviser, and starting research. During that time, they receive a stipend and complete two semesters of mentored teaching experiences. After achieving the required course grades and passing an oral examination at the end of their second year, students are normally paid from research funds while working on their research and writing a dissertation. The PhD program typically takes between five and six years to complete.

Website: <http://physics.wustl.edu/graduate>

## Faculty

### Chair

**Mark Alford** (<https://physics.wustl.edu/people/mark-g-alford/>)

Professor

PhD, Harvard University

Nuclear/particle physics

### Endowed Professors

**Ramanath Cowsik** (<https://physics.wustl.edu/people/ramanath-cowsik/>)

James S. McDonnell Professor of Space Sciences

PhD, University of Bombay

Astrophysics and space sciences

**Kenneth F. Kelton** (<https://physics.wustl.edu/people/kenneth-f-kelton/>)

Arthur Holly Compton Professor of Physics

PhD, Harvard University

Condensed matter and materials physics

**Henric Krawczynski** (<https://physics.wustl.edu/people/henric-krawczynski/>)

Wayman Crow Professor of Physics

PhD, University of Hamburg

Experimental high-energy astrophysics

## Professors

**James H. Buckley** (<https://physics.wustl.edu/people/james-h-buckley/>)

PhD, University of Chicago

Experimental high-energy astrophysics

**Anders E. Carlsson** (<https://physics.wustl.edu/people/anders-e-carlsson/>)

PhD, Harvard University

Biophysics

**Willem H. Dickhoff** (<https://physics.wustl.edu/people/willem-h-dickhoff/>)

PhD, Free University, Amsterdam

Many-body theory

**Martin H. Israel** (<https://physics.wustl.edu/people/martin-h-israel/>)

PhD, California Institute of Technology

Experimental cosmic-ray physics

**Jonathan I. Katz** (<https://physics.wustl.edu/people/jonathan-i-katz/>)

PhD, Cornell University

Theoretical astrophysics

**Zohar Nussinov** (<https://physics.wustl.edu/people/zohar-nussinov/>)

PhD, University of California, Los Angeles

Theoretical condensed matter physics

**Michael C. Ogilvie** (<https://physics.wustl.edu/people/michael-c-ogilvie/>)

PhD, Brown University

Theoretical particle physics

**Ralf Wessel** (<https://physics.wustl.edu/people/ralf-wessel/>)

PhD, University of Cambridge

Biophysics

**Li Yang** (<https://physics.wustl.edu/people/li-yang/>)

PhD, Georgia Institute of Technology

Condensed matter and materials science

## Joint Professor

**Lee G. Sobotka** (<https://physics.wustl.edu/people/lee-sobotka/>)

PhD, University of California, Berkeley  
(Chemistry)  
Experimental nuclear physics

## Associate Professors

**Francesc Ferrer** (<https://physics.wustl.edu/people/francesc-ferrer/>)

PhD, Universitat Autònoma de Barcelona  
Theoretical astro-particle physics & cosmology

**Kater Murch** (<https://physics.wustl.edu/people/kater-murch/>)

PhD, University of California, Berkeley  
Quantum information and materials

**Alexander Seidel** (<https://physics.wustl.edu/people/alexander-seidel/>)

PhD, Massachusetts Institute of Technology  
Theoretical condensed matter physics

## Assistant Professors

**Bhupal Dev** (<https://physics.wustl.edu/people/bhupal-dev/>)

PhD, University of Maryland, College Park  
Theoretical astro-particle physics & cosmology

**Manel Errando** (<https://web.physics.wustl.edu/errando/>)

PhD, Universitat Autònoma de Barcelona  
High-energy astrophysics, black holes, active galactic nuclei

**Erik Henriksen** (<https://physics.wustl.edu/people/erik-henriksen/>)

PhD, Columbia University  
Condensed matter and materials science

**James Mertens** (<https://physics.wustl.edu/people/james-mertens/>)

PhD, Case Western Reserve University  
Theoretical high-energy astrophysics

**Shankar Mukherji** (<https://physics.wustl.edu/people/shankar-mukherji/>)

PhD, Massachusetts Institute of Technology/Harvard Medical School  
Systems cell biology

**Johanna Nagy** (<https://physics.wustl.edu/people/johanna-nagy/>)

PhD, Case Western Reserve University  
Experimental astrophysics

**Ryan Ogliore** (<https://physics.wustl.edu/people/ryan-ogliore/>)

PhD, California Institute of Technology  
Cosmochemistry, planetary science

**Saori Pastore** (<https://physics.wustl.edu/people/saori-pastore/>)

PhD, Old Dominion University  
Theoretical nuclear physics

**Maria Piarulli** (<https://physics.wustl.edu/people/maria-piarulli/>)

PhD, Old Dominion University  
Theoretical nuclear physics

**Sheng Ran** (<https://physics.wustl.edu/people/sheng-ran/>)

PhD, Iowa State University  
Condensed matter, quantum materials

**Mikhail Tikhonov** (<https://physics.wustl.edu/people/mikhail-tikhonov/>)

PhD, Princeton University  
Microbiome, microbial ecology and evolution

## Senior Lecturer

**Mairin Hynes** (<https://physics.wustl.edu/people/kathryn-mairin-hynes/>)

PhD, Washington University

## Lecturer

**Augusto Medeiros da Rosa** (<https://physics.wustl.edu/people/augusto-medeiros-da-rosa/>)

PhD, Washington University

## Research Professors

**Sachiko Amari** (<https://physics.wustl.edu/people/sachiko-amari/>)

PhD, Kobe University

**Alexander Meshik** (<https://physics.wustl.edu/people/alex-meshik/>)

PhD, Vernadsky Institute of Cosmochemistry

**Michael Nowak** (<https://physics.wustl.edu/people/michael-nowak/>)

PhD, Stanford University

## Research Associate Professors

**Jeffrey Gillis-Davis** (<https://physics.wustl.edu/people/jeffrey-gillis-davis/>)

PhD, Rice University  
Experimental astrophysics

**Olga Pravdivtseva** (<https://physics.wustl.edu/people/olga-pravdivtseva/>)

PhD, Vernadsky Institute, Russian Academy of Sciences

## Research Assistant Professors

**Nan Liu** (<https://physics.wustl.edu/people/nan-liu/>)

PhD, University of Chicago

**Brian Rauch** (<https://physics.wustl.edu/people/brian-rauch/>)  
PhD, Washington University

## Professors Emeriti

**Carl M. Bender** (<https://physics.wustl.edu/people/carl-bender/>)  
Wilfred R. and Ann Lee Konneker Professor of Physics  
PhD, Harvard University

**Claude W. Bernard** (<https://physics.wustl.edu/people/claude-bernard-0/>)  
PhD, Harvard University

**Thomas Bernatowicz** (<https://physics.wustl.edu/people/thomas-j-bernatowicz/>)  
PhD, Washington University

**Robert Binns** (<https://physics.wustl.edu/people/w-robert-binns/>)  
PhD, Colorado State University

**John W. Clark** (<https://physics.wustl.edu/people/john-w-clark/>)  
PhD, Washington University

**Mark S. Conradi** (<https://physics.wustl.edu/people/mark-s-conradi/>)  
PhD, Washington University

**Peter A. Fedders** (<https://physics.wustl.edu/people/peter-fedders/>)  
PhD, Harvard University

**Patrick C. Gibbons** (<https://physics.wustl.edu/people/patrick-c-gibbons/>)  
PhD, Harvard University

**Charles M. Hohenberg** (<https://physics.wustl.edu/people/charles-m-hohenberg/>)  
PhD, University of California, Berkeley

**Kazimierz Luszczyński** (<https://physics.wustl.edu/people/kazimierz-luszczyński/>)  
PhD, University of London

**James G. Miller** (<https://physics.wustl.edu/people/james-g-miller/>)  
Albert Gordon Hill Professor of Physics  
PhD, Washington University

**Peter R. Phillips** (<https://physics.wustl.edu/people/peter-r-phillips/>)  
PhD, Stanford University

**James S. Schilling** (<https://physics.wustl.edu/people/james-s-schilling/>)  
PhD, University of Wisconsin-Madison

**Stuart A. Solin** (<https://physics.wustl.edu/people/stuart-solin-0/>)  
Charles M. Hohenberg Professor of Experimental Physics  
PhD, Purdue University

**Wai-Mo Suen** (<https://physics.wustl.edu/people/wai-mo-suen-0/>)  
PhD, California Institute of Technology

**Clifford Will** (<https://physics.wustl.edu/people/clifford-m-will/>)  
PhD, California Institute of Technology

## Degree Requirements

The information below summarizes the physics department's degree requirements. These requirements are in addition to those established by the Graduate School. For more information about requirements for doctoral degrees (p. 16) or master's degrees (p. 23) in the Graduate School, please visit the appropriate sections of this *Bulletin*.

## Master of Arts in Physics

### 36-Unit Academic Credit Course Requirement

Courses that count toward academic credit are as follows:

- Any regular 400- or 500-level lecture courses in the physics department, including Physics 597/598 Supervised Teaching of Physics and Physics 582 Research Seminar
- Courses outside of the physics department, if approved by the master's program director
- Reading courses, for which students should register for Physics 589/590 Selected Topics in Physics
- Supervised research, for which students should register for Physics 593/594 Introduction to Methods in Physics (This can be used for a maximum of 6 units of academic credit.)

Students can take up to six 400-level physics classes toward their academic credit requirements without special permission from the graduate studies committee. However, they should discuss the merits of doing so with their adviser.

## Core Course Requirements

For qualification, students must pass five core 500-level physics courses. In those courses, the student must maintain an average of a B (a grade-point average of 3.0), with no more than one grade lower than B-. A given core course may be taken only once. If more than five courses are taken, the average will be determined from the best five course grades.

**Students must take the following three courses:**

Required	Units
Classical Electrostatics I	3
Quantum Mechanics I	3
Statistical Mechanics	3

They must also take at least two of the following:

Required	Units
Theoretical Physics	3
Classical Electrodynamics II	3
Classical Mechanics <b>or</b> Nonlinear Dynamics	3
Quantum Mechanics II	3

## PhD in Physics

### Outline of Requirements

- Complete 36 units of academic credit (detailed below), maintaining an average grade of at least B (3.0 GPA).
- Pass the PhD qualification procedure. This must be done before a student can formally join a research group, and it is normally completed before the start of the third year.
- Complete the teaching requirements.
- Write a thesis (doctoral dissertation).
- Pass an oral dissertation defense examination.

### 36-Unit Academic Credit Course Requirement

Courses that count toward academic credit are as follows:

- Any regular 400- or 500-level lecture courses in the physics department, including Physics 597/598 Supervised Teaching of Physics and Physics 582 Research Seminar
- Courses outside of the physics department, if approved by the student's adviser and the director of graduate studies
- Reading courses, for which students should register for Physics 589/590 Selected Topics in Physics
- Supervised research, for which students should register for Physics 593/594 Introduction to Methods in Physics (This can be used for a maximum of 6 units of academic credit.)

Students can take up to four 400-level physics classes toward their academic credit without special permission from the graduate studies committee. However, they should discuss the merits of doing so with their adviser.

### PhD Qualification: Course Requirements

For qualification, students must pass six core 500-level physics courses. In those courses, the student must maintain an average of a B (3.0 GPA), with no more than one grade lower than B-. A given core course may be taken only once. If more than six core courses are taken, the average will be determined from the best six course grades.

Students must take the following four courses:

Required	Units
Theoretical Physics	3
Classical Electrodynamics I	3
Quantum Mechanics I	3
Statistical Mechanics	3

They must also take at least two of the following:

Required	Units
Methods of Theoretical Physics II	3
Classical Electrodynamics II	3
Classical Mechanics <b>or</b> Nonlinear Dynamics	3
Quantum Mechanics II	3

These requirements can be modified or waived for students with previous graduate experience (e.g., a master's degree in physics).

### PhD Qualification: Oral Examination Requirement

To qualify, the student must give a presentation to a committee of three physics faculty members (i.e., the prospective research adviser and two others). The student should demonstrate a basic understanding of a major topic of current research in the selected area of study, which will have been chosen in consultation with the student's prospective thesis adviser. One week before the oral exam, the student must prepare a written paper (approximately 1500-3000 words) summarizing the content of the presentation and give it to the committee. The student's responses to questions raised by the examination committee are graded as adequate or not. Students have a chance to answer inadequately answered questions in writing within 48 hours after the examination. The student is not allowed to receive assistance in preparing the written response from any other individuals. The answers should either be given in person to the chair of the examination committee or emailed to the chair as a PDF file so that it is time stamped. The committee will determine whether the written answers are sufficient.

The committee must be chosen and approved by the department chairman by the end of a student's third semester (typically in December of the second year). The oral examination should be taken by the end of a student's fourth semester (typically in May of the second year). If the student fails the oral examination, they can take it again one additional time.

### Teaching Requirements

These requirements must be completed before the student submits their doctoral dissertation to the Graduate School:

- **Complete L31 Physics 597:** Graduate students are required to take L31 Physics 597 Supervised Teaching of Physics prior to serving as an assistant in instruction. Students typically take Physics 597 during their first fall semester.
- **Complete at least two semesters of mentored teaching experiences**
- **Complete four hours of oral presentations:** Graduate students must complete a total of four hours of specialized oral presentations. Examples of such presentations include teaching a class (e.g., when substituting for a professor); giving seminars, such as the weekly graduate seminar; or giving oral presentations at conferences, journal clubs, and the like.

## Dissertation Requirements

Please refer to the Graduate School's Doctoral Dissertation Guide (PDF) ([http://bulletin.wustl.edu/grad/gsas/physics/Doctoral\\_Dissertation\\_Guide\\_2018.pdf](http://bulletin.wustl.edu/grad/gsas/physics/Doctoral_Dissertation_Guide_2018.pdf)) for more information.

## Political Science

The doctoral program in political science at Washington University is one of the top programs in the country. Graduate students take classes and engage in research with a faculty recognized nationally and internationally as among the most expert, active and productive in the country.

Our graduate program is relatively small. We admit around eight to 10 students into the PhD program each year, and most of these complete the doctorate, generally in five to six years. There are approximately 40 graduate students currently in residence.

Washington University's **PhD program in Political Science** is designed to prepare students for academic careers in research and teaching at major institutions across the country. We stress the importance of political methodology (applied statistics) and formal theory (game theory and mathematical modeling), and our program is designed to teach all students in these methods, regardless of their mathematical background.

We have active research groups in American politics and institutions, comparative politics, international political economy, positive and normative theory, and political methodology. It is important to emphasize that we do not regard these subfields as separate entities. Many of our faculty have research and teaching interests that transcend political science subfields as well as traditional disciplinary boundaries. We have strong connections with other departments at Washington University (including the departments of Economics and Anthropology), with the School of Law, and with various interdisciplinary research centers on campus.

Contact: Colleen Skaggs  
Phone: 314-935-7455  
Email: cskaggs@wustl.edu  
Website: <https://polisci.wustl.edu/graduate-program>

## Faculty

### Chancellor

**Andrew Martin** (<https://polisci.wustl.edu/people/andrew-martin/>)

Professor of Political Science and Law  
PhD, Washington University

### Chair

**Margit Tavits** (<https://polisci.wustl.edu/people/margit-tavits/>)

William Taussig Professor in Arts & Sciences  
PhD, University of Pittsburgh

### Associate Chair

**Andrew Reeves** (<https://polisci.wustl.edu/people/andrew-reeves/>)

PhD, Harvard University

### Director of Undergraduate Studies

**Francis Lovett** (<https://polisci.wustl.edu/people/frank-lovett/>)

PhD, Columbia University

### Director of Graduate Studies

**David Carter** (<https://polisci.wustl.edu/people/david-carter/>)

PhD, University of Rochester

### Endowed Professors

**Randall Calvert** (<https://polisci.wustl.edu/people/randall-calvert/>)

Thomas F. Eagleton University Professor of Public Affairs and Political Science  
PhD, California Institute of Technology

**Lee Epstein** (<http://epstein.wustl.edu/>)

Ethan A.H. Shepley Distinguished University Professor  
PhD, Emory University

**James L. Gibson** (<https://polisci.wustl.edu/people/james-l-gibson/>)

Sidney W. Souers Professor of Government  
PhD, University of Iowa

**Steven S. Smith** (<https://polisci.wustl.edu/people/steven-s-smith/>)

Kate M. Gregg Professor of Social Sciences  
Director of the Weidenbaum Center on the Economy, Government, and Public Policy  
PhD, University of Minnesota

**James Spriggs II** (<https://polisci.wustl.edu/people/james-f-spriggs/>)

Sidney W. Souers Professor of Government  
PhD, Washington University

**Margit Tavits** (<https://polisci.wustl.edu/people/margit-tavits/>)

William Taussig Professor in Arts & Sciences  
PhD, University of Pittsburgh

## Professors

**Daniel Butler** (<https://polisci.wustl.edu/people/daniel-butler/>)

PhD, Stanford University

**Brian F. Crisp** (<https://polisci.wustl.edu/people/brian-crisp/>)

PhD, University of Michigan

**Matthew Gabel** (<https://polisci.wustl.edu/people/matthew-gabel/>)

PhD, University of Rochester

**Clarissa Hayward** (<https://polisci.wustl.edu/people/clarissa-rile-hayward/>)

PhD, Yale University

**Francis Lovett** (<https://polisci.wustl.edu/people/frank-lovett/>)

PhD, Columbia University

**Andrew Reeves** (<https://polisci.wustl.edu/people/andrew-reeves/>)

PhD, Harvard University

**Guillermo Rosas** (<https://polisci.wustl.edu/people/guillermo-rosas/>)

PhD, Duke University

**Betsy Sinclair** (<https://polisci.wustl.edu/people/betsy-sinclair/>)

PhD, California Institute of Technology

## Associate Professors

**Deniz Aksoy** (<https://polisci.wustl.edu/people/deniz-aksoy/>)

PhD, University of Rochester

**Michael Bechtel** (<https://polisci.wustl.edu/people/michael-m-bechtel/>)

PhD, University of Konstanz

**David Carter** (<https://polisci.wustl.edu/people/david-carter/>)

PhD, University of Rochester

**Dino Christenson** (<https://polisci.wustl.edu/people/dino-christenson/>)

PhD, Ohio State University

**Justin Fox** (<https://polisci.wustl.edu/people/justin-fox/>)

PhD, University of Rochester

**Jacob Montgomery** (<https://polisci.wustl.edu/people/jacob-montgomery/>)

PhD, Duke University

**Sunita Parikh** (<https://polisci.wustl.edu/people/sunita-parikh/>)

PhD, University of Chicago

**Keith Schnakenberg** (<https://polisci.wustl.edu/people/keith-schnakenberg/>)

PhD, Washington University

## Assistant Professors

**Taylor Carlson** (<https://polisci.wustl.edu/people/taylor-carlson/>)

PhD, University of California, San Diego

**Ted Enamorado** (<https://polisci.wustl.edu/people/ted-enamorado/>)

PhD, Princeton University

**Christopher Lucas** (<https://polisci.wustl.edu/people/christopher-lucas/>)

PhD, Harvard University

**Lucia Motolinia** (<https://polisci.wustl.edu/people/lucia-motolinia/>) (*as of January 2022*)

PhD, New York University

**William Nomikos** (<https://polisci.wustl.edu/people/william-nomikos/>)

PhD, Yale University

**Michael Olson** (<https://polisci.wustl.edu/people/michael-olson/>)

PhD, Harvard University

**Carly Wayne** (<https://polisci.wustl.edu/people/carly-wayne/>)

PhD, University of Michigan

## Professors Emeriti

**William R. Lowry** (<https://polisci.wustl.edu/people/william-lowry/>)

PhD, Stanford University

**Gary Miller** (<https://polisci.wustl.edu/people/gary-miller/>)

PhD, University of Texas at Austin

**Itai Sened** (<https://polisci.wustl.edu/people/itai-sened/>)

PhD, University of Rochester

**John Sprague** (<https://polisci.wustl.edu/people/john-sprague/>)

Sidney W. Souers Professor Emeritus of Government  
PhD, Stanford University

## Degree Requirements

### PhD in Political Science

Students in the PhD program are expected to acquire the following:

- A broad understanding of several fields of political science as a discipline
- Methodological competence sufficient to be productive professionals
- Specialized expertise in a particular field of concentration.

The procedures and requirements described below are designed to facilitate the achievement of these objectives. In addition to the formal requirements stated here, we provide a list of recommendations that students should follow to succeed in the program. For a detailed year-to-year outline of requirements and recommendations, please refer to the section "Specific Requirements for Each Year in the Program" at the end of the *Guide to Graduate Studies*, located on the Graduate Program website (<https://polisci.wustl.edu/resources/>).

Exceptions to any of these requirements must be approved by the director of graduate studies (DGS) in consultation with the Graduate Committee and, as needed, the respective Field Committee.

## General Course Requirements

In general, all students must successfully complete the following core courses with a grade of B or better:

- Math Camp (offered during the August before the first semester)
- Game Theory (505) (first semester)
- Mathematical Modeling in Political Science (5052) (first semester)
- Quantitative Methods I (581) (second semester)
- Quantitative Methods II (582) (third semester)
- Causal Inference (5024) (fourth semester)
- Research Workshop I (590) (fifth semester)

According to the Probation and Dismissal Policy, if a student fails to obtain a B in one of the required courses, they will be placed on probation and have the opportunity to retake the course the following year. Failure to obtain a B after taking the course for the second time will result in dismissal from the program. Furthermore, failure to obtain a B in another required course while on probation is considered extreme underperformance and will result in dismissal from the program.

In addition to required courses, students will be taking courses in different fields. Courses are mainly concentrated during the first two years. Students should plan to take four courses per semester during their first year and three courses per semester during their second year.

## Incompletes

Students are strongly discouraged from accumulating incompletes. The Graduate School prohibits more than 9 credit units' worth of incomplete courses. The department supports this policy and will consider the number of incompletes that students have accumulated when evaluating their work and making decisions about financial support.

## Fields

The department divides the discipline of political science into six fields:

- American politics
- Comparative politics
- Formal theory
- International politics
- Political and social theory
- Quantitative methods

Before writing the dissertation, students must pass a qualifying evaluation (refer to next section) and fulfill requirements for certification in one major and one minor field. The major and minor field certifications are intended to ensure that students possess broad familiarity with the literature and material in the fields presented.

Field requirements are met by completing the required courses with a grade of B+ or better. A major field requires completing four courses in that field with a grade of B+ or better; a minor field requires completing three courses in that field with a grade of B+ or better.

Students are expected to complete course requirements for the major and minor by the end of their fourth semester. Exceptions can be granted by the DGS on a case-by-case basis but not beyond the student's sixth semester.

## Field Requirements

### *American Politics*

- Major: Students must satisfactorily complete (with a grade of B+ or better) at least four graduate-level seminars in American politics, including American Political Institutions (520) and American Political Behavior (5678).
- Minor: Students must satisfactorily complete (with a grade of B+ or better) at least three graduate-level seminars in American politics, including American Political Institutions (520) and American Political Behavior (5678).

### *Comparative Politics*

- Major: Students must satisfactorily complete (with a grade of B+ or better) at least four graduate-level seminars in comparative politics, including Approaches to Comparative Politics (510).

- Minor: Students must satisfactorily complete (with a grade of B+ or better) at least three graduate-level seminars in comparative politics, including Approaches to Comparative Politics (510).

#### *Formal Theory*

- Major: Students must satisfactorily complete (with a grade of B+ or better) at least four graduate-level seminars in formal theory, including Game Theory (505) and three other 500-level courses that require Game Theory (505) as a prerequisite. With permission of the Formal Theory Field Committee, an appropriate 500-level economics course may be substituted.
- Minor: Students must satisfactorily complete (with a grade of B+ or better) at least three graduate-level seminars in formal theory, including Game Theory (505) and two other 500-level courses that require Game Theory (505) as a prerequisite. With permission of the Formal Theory Field Committee, an appropriate 500-level economics course may be substituted.

#### *International Politics*

- Major: Students must satisfactorily complete (with a grade of B+ or better) at least four graduate-level seminars in international politics. This includes the 500-level graduate sequence and 400- and 500-level political science and economics courses authorized by the International Politics Committee.
- Minor: Students must satisfactorily complete (with a grade of B+ or better) at least three graduate-level seminars in international politics. This includes the 500-level graduate sequence and 400- and 500-level political science and economics courses authorized by the International Politics Committee.

#### *Political and Social Theory*

- Major: Students must satisfactorily complete (with a grade of B+ or better) at least four graduate-level courses in political theory; the theory faculty recommends at least two of the History of Political Thought courses (5090, 5092 and 5093) and at least two seminars in political theory.
- Minor: Students must satisfactorily complete (with a grade of B+ or better) at least three graduate-level courses in political theory authorized by the Political Theory Committee.

#### *Quantitative Methods*

- Major: Students must satisfactorily complete (with a grade of B+ or better) at least four methods courses, including the required sequence (581 and 582) and additional elective methodology courses authorized by the Quantitative Methods Committee.

- Minor: Students must satisfactorily complete (with a grade of B+ or better) at least three methods courses, including the required sequence (581 and 582) and an additional elective methodology course authorized by the Quantitative Methods Committee.

According to the Probation and Dismissal Policy, if a student fails to meet field requirements as a result of grades or for other reasons by the end of their fourth semester, then they will be placed on probation for one semester. Failure to meet the field requirements by the end of that semester results in dismissal from the program.

### **Qualifying Evaluations**

Each student will be evaluated at the end of each semester through their second year. These evaluations will take place at the end of their first and second semesters, the end of their first-year summer, and at the end of their third and fourth semesters.

Evaluation criteria for the academic year include the following: regular classroom attendance (at least 90%), participation in departmental intellectual life (e.g., seminars, conferences, professionalization workshops), and grades (a grade of B or higher for all required courses). Grades will be particularly emphasized, and faculty of required courses will use grades as clear communication that students have mastered the course material. Each required course will include a cumulative final exam or another final assignment of a cumulative nature that will assess the student's broad mastery of relevant materials.

At the end of their first-year summer, students must submit (a) evidence of research progress (which can consist of skill development, collaborative research, or individual research output) and (b) feedback from a faculty mentor.

The DGS will distribute a survey to all faculty to collect the necessary feedback regarding student performance and engagement. To remain in good standing, students must (a) be making good progress with respect to their coursework and mentored teaching experience assignments; (b) be advancing in terms of their research trajectory, as appropriate for their stage in the program; and (c) be maintaining professional comportment with faculty, peers, and staff.

If a student fails to successfully pass any of these evaluations, they will be placed on probation. If the student makes significant progress during the next evaluation period and satisfactorily addresses the terms of the standing probation, they will be removed from probation. Failing to make significant progress during the next evaluation period may result in dismissal from the program.



## Third-Year Paper Requirement

During their second and third years, each student is required to produce a solo-authored research paper. The expectation is that this paper will be in the same field as the student's dissertation and at the level of quality for submission to a peer-reviewed journal.

Students need to identify two advisers (i.e., the research paper chair and a second reader) and obtain their signatures on the Research Paper Proposal Form after taking the qualifying exam (i.e., by the end of January of their second year). In consultation with these advisers (i.e., the committee), they need to develop a research design (motivation, theory, design, data sources) by the last day of classes of the spring semester of their second year. By the end of the spring semester, the student needs to schedule a formal defense of the proposal with their committee and submit a form with the advisers' signatures after the defense to the departmental administrative assistant responsible for graduate affairs.

The third-year paper is due to the committee by the first day of classes of the third year. The committees will grade these submissions within the first two weeks of the semester. At this point, students will either receive a "revise and resubmit" or a "reject and resubmit" from their committee. A "reject and resubmit" is a judgment by the faculty that the paper does not reflect satisfactory progress toward the research paper. Students receiving this evaluation will be placed on academic probation, and a failure to significantly improve the project will result in dismissal from the program. In extraordinary circumstances, a "conditional accept/high pass" can be granted.

Students will enroll in Research Workshop during their third year. This fall workshop is devoted to helping students revise their papers for final submission.

The final papers are due to the DGS and both readers by the start of the sixth semester. Students are required to defend this paper publicly. The DGS will organize a public presentation for all research papers within the first three weeks of the semester.

The Third-Year Committee will evaluate the quality of the research paper and its potential for submission to and acceptance in a peer-reviewed journal. Students who received a "reject and resubmit" during the first round should anticipate stricter scrutiny from faculty at this stage. The paper can be graded as pass or fail. A failing grade in this defense by students who previously received a "reject and resubmit" will result in dismissal from the program. A failing grade without a prior "reject and resubmit" will result in the student being placed on probation until they resubmit and successfully pass the research paper requirement, which must occur before the end of the spring term. Failing to do so will result in dismissal from the program.

In the event of disagreement between the chair and the reader, the DGS will select a third reader in consultation with the faculty in the student's area of study to evaluate the paper and make a decision about the final grade. The research paper chair and the reader(s) will inform the student and the DGS of the final grade, together with an explanation, within two weeks after the defenses have been completed.

## Dissertation Committee and Prospectus Requirement

Students are required to form a Dissertation Committee that consists of at least three faculty members by the start of the fifth semester (January of their third year). Forming a committee requires selecting a dissertation chair and at least two other faculty members and then submitting the Dissertation Committee Proposal Form, which includes the signatures of all committee members. With the assistance of the DGS, students will make sure the composition of the committee also meets the Graduate School requirements.

Students will enroll in the year-long Research Workshop during their third year. The spring semester of this workshop is devoted to helping students develop their dissertation prospectuses.

Students are required to have defended the dissertation prospectus by the end of the sixth semester (May of their third year). Dissertation prospectus defenses will be announced in advance and will be open to the public. Students who fail to schedule a defense or who fail the defense will be put on probation and may re-defend their prospectus by August 1. Failing to schedule or failing the re-defense results in dismissal from the program.

Students are encouraged to apply for the National Science Foundation Dissertation Improvement Grant and to other outside funding agencies to pursue additional financial support for their dissertation research.

## Summary Timeline

(Please refer to "Specific Expectations for Each Year in Program" in the *Guide to Graduate Studies* on the Graduate Program website (<https://polisci.wustl.edu/resources/>) for more details.)

- End of second semester: Evaluation of class performance and meeting with the DGS
- End of third semester: Required courses (with the exception of the Research Workshop) completed
- Beginning of fourth semester (January): Submit Third-Year Paper Form (seeking chair and reader)
- End of fourth semester: Major and minor field requirements completed; defend research paper prospectus to chair and second reader
- Before the start of fifth semester (August): Submit third-year paper

- Beginning of sixth semester (January): Resubmit and defend third-year paper; submit Dissertation Committee Proposal Form
- End of eighth semester: Defend Dissertation Prospectus (resubmitted prospectus must be defended before the start of the seventh semester)

## Dissertation and Defense

The requirements for the completion of the dissertation are described in the general Degree Requirements (<https://graduateschool.wustl.edu/degree-req/>) by the Graduate School, which are applicable to all Washington University doctoral candidates.

## Graduation

Students need to graduate by May of their sixth year. Failure to do so results in the student being placed on probation. The student then has a chance to finish their dissertation by August of their seventh year. Failing that, they will be dismissed from the program.

## Foreign Language Requirement

There is no uniform foreign language requirement set by the Graduate School or by the department. The extent and substance of foreign language competence required will be determined by the Graduate Committee in consultation with the student and their adviser.

## Mentored Teaching Experience Responsibilities

Students collaborate with a faculty member for a mentored teaching experience (MTE).

Mentored teaching responsibilities vary from course to course but in all cases may consist of attending class and grading papers and assignments. Examples of other responsibilities include running discussion sections or reviews, disseminating course materials and holding office hours.

Graduate students are expected to participate in the MTE for an average of 13.5 hours per week. During some weeks, this will involve considerably fewer hours; during other weeks (usually around midterms and finals), it will involve considerably more.

Faculty are expected to set expectations for grading at the beginning of each semester, and graduate students should plan accordingly for weeks of heavier grading or other responsibilities.

According to the Probation and Dismissal Policy, poor performance in the fulfillment of mentored teaching responsibilities will result in the student being placed on probation. Lack of improvement while on probation will result in dismissal from the program.

## Mentored Experience Requirement

All students need to meet the Graduate School's mentored experience requirement by the time they graduate. This requirement includes the following:

- Participating in departmental intellectual life, which includes but is not limited to meeting with outside speakers, attending talks and in-house conferences, presenting their own research, assisting with graduate student recruitment, and helping to organize in-house conferences (e.g., CPAC)
- Participating in an MTE for a "core" class in the student's field of study; this includes introductory classes, Quantitative Political Methods, or other classes considered "core" by the DGS
- Giving at least one supervised guest lecture or presentation
- Participating in the MTE or teaching a class that involves regular interaction with students

## MA in Statistics

Students pursuing a PhD in political science can apply for a tailored MA in statistics. The completion of this program should not add any more time to a student's time to degree. Please consult with Professor Betsy Sinclair (<https://polisci.wustl.edu/people/betsy-sinclair/>) if you are interested in pursuing this MA degree.

## Psychological & Brain Sciences

The Department of Psychological & Brain Sciences teaches graduate students who are interested in becoming the next generation of academic researchers and educators in psychological and brain sciences. Graduate study may be undertaken in the following general areas: Behavior, Brain & Cognition; Clinical Psychology; Aging & Development; and Social & Personality Psychology. The traditions of Washington University and the department encourage interdisciplinary graduate study, both between the subfields of psychological and brain sciences and across other disciplines. Therefore, although students must affiliate with at least one of the areas within psychological and brain sciences, they are frequently affiliated with multiple areas within the field. In addition, many graduate students in the department also engage in interdisciplinary learning, scholarship and research. For example, cross-disciplinary opportunities and research are available in the Division of Biology and Biomedical Sciences (e.g., neuroscience, genetics); in the programs of Linguistics and of Cognitive, Computational, and Systems Neuroscience; in African-American Studies; and in Philosophy-Neuroscience-Psychology, as well as in several departments in the School of Medicine and McKelvey School of Engineering.

The Department of Psychological & Brain Sciences admits students for full-time study toward the **PhD** and does not offer a terminal master's degree. However, students are required to complete a master's degree with a thesis as part of the

requirements for a PhD. In addition, the PhD includes required courses (including statistics, methods, ethics and several core content areas), a subject matter exam, at least two semesters of a teaching experience to fulfill the doctoral teaching requirement, and consistently high-quality research productivity that results in publishable findings.

The Department of Psychological & Brain Sciences also offers the **Graduate Certificate in Quantitative Data Analysis**, which is open to graduate students of various disciplines. Advanced skills and knowledge in quantitative analysis, methods and interpretation are critical assets for scholars in a wide range of disciplines within the social sciences. In addition, many of the important practical, analytical and conceptual skills are shared across disciplines. Many of the graduate programs in the social sciences include basic quantitative analysis skills within the core required curriculum of their department, but many students would benefit from advanced preparation in this domain. The certificate program will provide an organized means for students to achieve an advanced level of knowledge and skill in quantitative social science data analysis, interpretation and visualization that can be applied and shared in a variety of occupational domains.

The Graduate Certificate in Quantitative Data Analysis requires students to master both an introductory level and a more advanced level of quantitative skills and knowledge. Some of the introductory-level courses may overlap with courses that are already required within a student's individual PhD program curriculum, but the advanced level will require students to go beyond the basic expectations of their graduate program to achieve a greater depth and breadth of their knowledge and abilities.

Students interested in the Graduate Certificate in Quantitative Data Analysis should first apply for admission to the Washington University department in which they wish to obtain a graduate degree. After being admitted, students should notify their department adviser and the Graduate Certificate in Quantitative Data Analysis program director (dbarch@wustl.edu) (dbarch@wustl.edu) of their plans to obtain the certificate. In addition, students should submit an Application for Admission to Certificate Program form to the Graduate School office and send a copy to the Graduate Certificate in Quantitative Data Analysis office.

Phone: 314-935-6520  
Website: <https://psych.wustl.edu/graduate-program>

## Faculty

### Chair

**Deanna M. Barch** (<http://psychweb.wustl.edu/people/deanna-barch/>)

Gregory B. Couch Professor of Psychiatry  
PhD, University of Illinois at Urbana-Champaign

### Associate Chair

**Jeffrey M. Zacks** (<https://dcl.wustl.edu/people/jeff-zacks/>)

Professor  
PhD, Stanford University

### Endowed Professors

**John Baugh** (<http://psychweb.wustl.edu/people/john-baugh/>)

Margaret Bush Wilson Professor in Arts & Sciences  
PhD, University of Pennsylvania  
(African and African-American Studies; Anthropology; Education; English)

**Pascal R. Boyer** (<https://psych.wustl.edu/people/pascal-boyer/>)

Luce Professor of Collective and Individual Memory  
PhD, University of Paris  
(Anthropology)

**Randy J. Larsen** (<https://psych.wustl.edu/people/randy-larsen/>)

William R. Stuckenberg Professor of Human Values and Moral Development  
PhD, University of Illinois at Urbana-Champaign

**Thomas F. Oltmanns** (<https://psych.wustl.edu/people/thomas-oltmanns/>)

Edgar James Swift Professor of Arts & Sciences  
PhD, State University of New York–Stony Brook

**Henry L. Roediger III** (<https://psych.wustl.edu/people/henry-roediger/>)

James S. McDonnell Distinguished University Professor  
PhD, Yale University

**Rebecca A. Treiman** (<https://psych.wustl.edu/people/rebecca-treiman/>)

Burke and Elizabeth High Baker Professor of Child Developmental Psychology  
PhD, University of Pennsylvania

**Denise E. Wilfley** (<https://psych.wustl.edu/people/denise-wilfley/>)

Scott Rudolph University Professor of Psychiatry  
PhD, University of Missouri

### Professors

**Richard A. Abrams** (<http://psychweb.wustl.edu/people/richard-abrams/>)

PhD, University of Michigan

**David A. Balota** (<http://psychweb.wustl.edu/people/david-balota/>)

PhD, University of South Carolina

**Todd Braver** (<http://psychweb.wustl.edu/people/todd-braver/>)

PhD, Carnegie Mellon University

**Brian D. Carpenter** (<http://psychweb.wustl.edu/people/brian-carpenter/>)

PhD, Case Western Reserve University

**Ian G. Dobbins** (<https://psych.wustl.edu/people/ian-dobbins/>)

PhD, University of California, Davis

**Leonard Green** (<https://psych.wustl.edu/people/leonard-green/>)

PhD, State University of New York–Stony Brook

**Sandra S. Hale** (<https://psych.wustl.edu/people/sandra-hale/>)

PhD, University of Wisconsin–Milwaukee

**Denise P. Head** (<http://psychweb.wustl.edu/people/denise-head/>)

PhD, University of Memphis

**Mark A. McDaniel** (<https://psych.wustl.edu/people/mark-mcdaniel/>)

PhD, University of Colorado

**Kathleen B. McDermott** (<https://psych.wustl.edu/people/kathleen-mcdermott/>)

PhD, Rice University

**Thomas L. Rodebaugh** (<https://psych.wustl.edu/people/thomas-rodebaugh/>)

PhD, University of North Carolina at Chapel Hill

**Mitchell Sommers** (<https://psych.wustl.edu/people/mitchell-sommers/>)

PhD, University of Michigan

**Michael J. Strube** (<http://psychweb.wustl.edu/people/michael-strube/>)

PhD, University of Utah

**Desirée A. White** (<https://psych.wustl.edu/people/desiree-white/>)

PhD, Washington University

## Endowed Associate Professor

**Joshua Jackson** (<https://psych.wustl.edu/people/joshua-jackson/>)

Saul and Louise Rosenzweig Associate Professor of Personality Science

PhD, University of Illinois at Urbana-Champaign

## Associate Professors

**Ryan Bogdan** (<http://psychweb.wustl.edu/people/ryan-bogdan/>)

PhD, Harvard University

**Julie M. Bugg** (<http://psychweb.wustl.edu/people/julie-bugg/>)

PhD, Colorado State University

**Tammy English** (<https://psych.wustl.edu/people/tammy-english/>)

PhD, University of California, Berkeley

**Patrick Hill** (<https://psych.wustl.edu/people/patrick-hill/>)

PhD, University of Notre Dame

**Alan J. Lambert** (<https://psych.wustl.edu/people/alan-lambert/>)

PhD, University of Illinois at Urbana-Champaign

**Lori Markson** (<https://psych.wustl.edu/people/lori-markson/>)

PhD, University of Arizona

**Renee J. Thompson** (<https://psych.wustl.edu/people/renee-thompson/>)

PhD, University of Illinois at Urbana-Champaign

**Clara L. Wilkins** (<https://psych.wustl.edu/people/clara-wilkins/>)

PhD, University of Washington

## Assistant Professors

**Wouter Kool** (<https://psych.wustl.edu/people/wouter-kool/>)

PhD, Princeton University

**Calvin Lai** (<https://psych.wustl.edu/people/calvin-lai/>)

PhD, University of Virginia

**Zachariah Reagh**

PhD, University of California, Irvine

**Kristin Van Engen** (<https://psych.wustl.edu/people/kristin-van-engen/>)

PhD, Northwestern University

## Affiliated Faculty

**Arpana Agrawal** (<https://psych.wustl.edu/people/arpana-agrawal/>)

PhD, Virginia Commonwealth University

(Psychiatry)

**Joe Barcroft** (<http://pages.wustl.edu/barcroft/>)

PhD, University of Illinois at Urbana-Champaign

(Romance Languages and Literatures)

**Cindy Brantmeier** (<http://education.wustl.edu/people/cindy-brantmeier/>)

PhD, Indiana University

(Education & Applied Linguistics)

**Robert Carney** (<https://psychiatry.wustl.edu/people/robert-m-carney-phd/>)

PhD, Washington University  
(Psychiatry)

**Maurizio Corbetta** (<http://www.nil.wustl.edu/labs/corbetta/about.html>)

MD, University of Pavia  
(Neurology)

**James DuBois** (<https://publichealth.wustl.edu/scholars/james-m-dubois/>)

PhD, International Academy of Philosophy, Liechtenstein  
(Medicine)

**Hillary Elfenbein** (<http://www.olin.wustl.edu/EN-US/Faculty-Research/Faculty/Pages/FacultyDetail.aspx?username=helfenbein>)

PhD, Harvard University  
(Business)

**Kenneth Freedland** (<https://psychiatry.wustl.edu/people/kenneth-e-freedland-phd/>)

PhD, University of Hawaii  
(Psychiatry)

**Robert Fucetola** (<http://wuphysicians.wustl.edu/physician2.aspx?Physnum=2526>)

PhD, Washington University  
(Neurology)

**Brian Gordon** (<https://www.mir.wustl.edu/research/research-laboratories/neuroimaging-laboratory-nil/our-research-groups/benzinger-research-group/people/brian-gordon/>)

PhD, University of Illinois  
(Radiology)

**Jason Hassenstab** ([https://neuro.wustl.edu/Faculty/Hassenstab\\_J/](https://neuro.wustl.edu/Faculty/Hassenstab_J/))

PhD, Fordham University  
(Neurology)

**Andrew Heath** (<https://psychiatry.wustl.edu/people/andrew-heath-dphil/>)

DPhil, Oxford University  
(Psychiatry)

**Tamara Hershey** (<https://psychiatry.wustl.edu/people/tamara-hershey-phd/>)

PhD, Washington University  
(Psychiatry)

**Barry Hong** (<https://psychiatry.wustl.edu/people/barry-hong-phd-abpp/>)

PhD, Saint Louis University  
(Psychiatry)

**Brett Hyde** (<http://pages.wustl.edu/bhyde/>)

PhD, Rutgers University  
(Philosophy)

**Brenda Kirchoff** (<https://sites.wustl.edu/ccplab/people/brenda-kirchoff/>)

Research Scientist  
PhD, Boston University  
(Psychological & Brain Sciences)

**Patrick Lustman** (<https://psychiatry.wustl.edu/people/patrick-lustman-phd/>)

PhD, Michigan State University  
(Psychiatry)

**Alvitta Ottley** (<https://cse.wustl.edu/faculty/Pages/faculty.aspx?bio=109>)

PhD, Tufts University  
(Computer Science and Engineering)

**Jonathan Peelle** (<http://jonathanpeelle.net/>)

PhD, Brandeis University  
(Otolaryngology)

**John Pruett** (<https://psychiatry.wustl.edu/people/john-pruett-jr-md-phd/>)

PhD, Washington University  
(Psychiatry)

**Marcus E. Raichle** (<http://www.nil.wustl.edu/labs/raichle/>)

MD, University of Washington  
(Radiology)

**Eugene Rubin** (<https://psychiatry.wustl.edu/people/eugene-rubin-md-phd/>)

MD, PhD, Washington University School of Medicine  
(Psychiatry)

**Lawrence Snyder** ([http://dbbs.wustl.edu/faculty/Pages/faculty\\_bio.aspx?SID=3164](http://dbbs.wustl.edu/faculty/Pages/faculty_bio.aspx?SID=3164))

MD, PhD, University of Rochester  
(Neurobiology)

**David Van Essen** ([http://brainvis.wustl.edu/wiki/index.php/Main\\_Page/](http://brainvis.wustl.edu/wiki/index.php/Main_Page/))

PhD, Harvard University  
(Anatomy and Neurobiology)

**James V. Wertsch** (<https://anthropology.wustl.edu/people/james-wertsch/>)

Marshall S. Snow Professor in Arts & Sciences  
PhD, University of Chicago  
(Anthropology; International and Area Studies; Education)

**David Wozniak** (<https://psychiatry.wustl.edu/people/david-wozniak-phd/>)

PhD, Washington University  
(Psychiatry)

## Research Professor

**Joel Myerson** (<https://psych.wustl.edu/people/joel-myerson/>)  
PhD, Arizona State University

## Lecturers

**Tim Bono** (<https://psych.wustl.edu/people/tim-bono/>)  
PhD, Washington University

**Emily Cohen-Shikora** (<https://psych.wustl.edu/people/emily-cohen-shikora/>)  
PhD, Washington University

**Shelly Cooper** (<https://psych.wustl.edu/people/shelly-cooper/>)  
PhD, Washington University

**Erin Lawton** (<https://psych.wustl.edu/people/erin-lawton/>)  
PhD, Washington University

**Emma Covey Johnson**  
PhD, University of Colorado

**John Nestojko** (<https://psych.wustl.edu/people/john-nestojko/>)  
PhD, University of California, Los Angeles

**Heather Rice** (<https://psych.wustl.edu/people/heather-rice/>)  
PhD, Duke University

**Shaina Rowell**  
PhD, University of Virginia

**Leah Schultz**  
PhD, Washington University

**Robinson Welch** (<https://psychiatry.wustl.edu/people/robinson-welch-phd/>)  
PhD, University of Missouri-Columbia

## Professors Emeriti

**Janet M. Duchek** (<https://psych.wustl.edu/people/janet-duchek/>)  
PhD, University of South Carolina

**Stanley Finger** (<https://psych.wustl.edu/people/stanley-finger/>)  
PhD, Indiana University Bloomington

**Larry Jacoby** (<https://psych.wustl.edu/people/larry-jacoby/>)  
PhD, Southern Illinois University Carbondale

**Brett Kessler** (<https://psych.wustl.edu/people/brett-kessler/>)  
PhD, Stanford University

**Michael Merbaum** (<https://psych.wustl.edu/people/michael-merbaum-0/>)  
PhD, University of North Carolina at Chapel Hill

**Steven E. Petersen** ([http://dbbs.wustl.edu/faculty/Pages/faculty\\_bio.aspx?SID=1480](http://dbbs.wustl.edu/faculty/Pages/faculty_bio.aspx?SID=1480))  
PhD, California Institute of Technology

**Anthony Schuham** (<https://psych.wustl.edu/people/anthony-schuham/>)  
PhD, Washington University

**Martha Storandt** (<https://psych.wustl.edu/people/martha-storandt/>)  
PhD, Washington University

## Degree Requirements

### PhD in Psychological & Brain Sciences

The following is a brief listing of the requirements for the PhD in Psychological & Brain Sciences. A more detailed description of these requirements may be found in our Graduate Student Handbook (PDF) ([http://bulletin.wustl.edu/grad/gsas/psych/graduate\\_student\\_handbook\\_october\\_2017.pdf](http://bulletin.wustl.edu/grad/gsas/psych/graduate_student_handbook_october_2017.pdf)). Students in the clinical science training program have somewhat different requirements; please refer to the Clinical Program Handbook (PDF) ([http://bulletin.wustl.edu/grad/gsas/psych/Clinical\\_Handbook\\_Current\\_Jan\\_2020.pdf](http://bulletin.wustl.edu/grad/gsas/psych/Clinical_Handbook_Current_Jan_2020.pdf)) as well.

All students must do the following:

- Complete required graduate-level courses (courses must be completed for a student to be considered "all but dissertation"). A typical semester course load for the first two years is 12 to 13 credit units, unless teaching responsibilities suggest a load of 9 to 10 credit units.
- Obtain teaching experience commensurate with preparation for an academic career. There is a teaching requirement that all students must meet, the details of which are outlined in our Graduate Student Handbook.
- Attend a 1-credit (one hour per week) seminar on research ethics. This typically happens during the fall semester of a student's first or second year in the program.
- Attend at least five professional development workshops over the course of the program.
- Complete a qualifying research project during the first two years of graduate study. This is often referred to as the master's thesis.
- Pass a subject matter examination. This examination must be passed before work on the dissertation can begin.
- Complete a dissertation project and defend it in an oral examination. The research requirements for the PhD are described in more detail in our Graduate Student Handbook.

### Graduate Certificate in Quantitative Data Analysis

The goal of the certificate is to ensure that students have a solid basis in probability and statistics, inference, and quantitative research design as well as some depth of experience in a more advanced topic area. As such, students completing the certificate are required to take at least five courses, the categories of which are shown below. Some courses appear in more than one area, but a course can only be used to fill one of the requirements. In consultation with the certificate adviser,

students may substitute equivalent courses or more demanding mathematical treatments of the same course material. For programming prerequisites, visit our Quantitative Data Analysis website (<https://psych.wustl.edu/graduate-certificate/>).

## Core Area Courses (at least one from each area)

### Probability and Statistics

Code	Title	Units
L33 Psych 5066	Quantitative Methods I	3
L33 Psych 5067	Quantitative Methods II	3
S50 SWSA 5230	Applied Linear Modeling	
L32 Pol Sci 572	Quantitative Methods in Pol Analysis II: Linear Models (Generalized Linear Models)	3
L32 Pol Sci 581	Quantitative Political Methodology I	3
L32 Pol Sci 582	Quantitative Political Methodology II	3
L48 Anthro 5365	Problems in Applied Data Analysis	3
L11 Econ 508	Mathematics for Economics	3

### Inference and Quantitative Research Design

Code	Title	Units
L32 Pol Sci 5024	Causal Inference	3
L33 Psych 5011	Research Designs and Methods	3
L12 Educ 503	Foundations of Educational Research	3
Math 420	Experimental Design (with graduate extension)	3

## Focus Area Courses (at least two from one of these three areas)

### Longitudinal and Time-Series Data Analysis

Code	Title	Units
SWDT 6600	Multilevel and Longitudinal Modeling	3
SWDT 6905	Propensity Score Analysis	3
L33 Psych 5068	Hierarchical Linear Models	3
L33 Psych 5165	Applied Longitudinal Data Analysis	3
B54 MEC 661	Analysis of Time Series Data	3
L32 Pol Sci 584	Multilevel Models in Quantitative Research	3
MSB 618	Survival Analysis	3

### Multivariate and Machine Learning Analysis

Code	Title	Units
L33 Psych 5012	Selected Topics in Design and Statistics	3
L33 Psych 516	Applied Multivariate Analysis	3
CSE 514A	Data Mining	3
CSE 517A	Machine Learning	3

L24 Math 470	Graph Theory (with graduate extension)	3
L24 Math 535	Topics in Combinatorics	3
SWDT 6901	Structural Equation Modeling	3

### Data Mining and Specialized Research Tools

Code	Title	Units
SWCD 5082	Foundations of Geographic Information Systems (GIS) for the Applied Social Sciences	3
CSE 514A	Data Mining	3
CSE 517A	Machine Learning	3
M21 MSB 550	Introduction to Bioinformatics	
Math 459	Bayesian Statistics (with graduate extension)	3
L33 Psych 5167	Applied Bayesian Statistics	3
CSE 316A	Social Network Analysis (with graduate extension)	3
L11 Econ 5161	Applied Econometrics	3

The fifth course can be from any of the three focus areas, or it can be a second course from the Probability and Statistics group.

## Public Health Sciences

The Brown School's PhD program in Public Health Sciences prepares students to think critically as public health scientists, to succeed as independent investigators, and to understand and address public health challenges for the nation and the world. It provides hands-on research experiences and mentoring from day one of the program; a curriculum that builds methodological and analytical skills and that offers deep knowledge of the field's theoretical and conceptual underpinnings, philosophy and history; and professional acculturation and network building.

Our doctoral program involves intense study in population health and social science research methods as well as personalized mentoring by some of the leading scholars in the field. Our faculty are on the forefront of research in such areas as health disparities, chronic disease prevention, epidemiology and biostatistics, global health, health policy, systems science, urban design and the built environment, dissemination and implementation science, and mental health. Our curriculum prepares students for leadership in research in a rapidly changing society. We provide a diversity of experience and faculty with a cross-section of interests that enhance transdisciplinary learning. We have created a collaborative and entrepreneurial community with a strong commitment to conducting research that will have social impact.

A completed master's degree in public health, social work, or related social or health science is required of all applicants for admission. The deadline for applications to the PhD in Public Health Sciences is December 1 of the year preceding enrollment.

For additional information, please refer to the Doctoral Programs Viewbook ([https://issuu.com/wustlbrownschool/docs/2020\\_phd\\_viewbook/](https://issuu.com/wustlbrownschool/docs/2020_phd_viewbook/)) on the Brown School website.

Contact: Smriti Bajracharya  
Phone: 314-935-3753  
Email: sbajracharya@wustl.edu  
Website: <https://brownschool.wustl.edu/academics/PhD-in-public-health-sciences>

## Faculty

### Dean

**Mary McKernan McKay** (<https://brownschool.wustl.edu/faculty-and-research/pages/mary-mckay.aspx>)  
Professor; Neidorff Family and Centene Corporation Dean of the Brown School  
PhD, University of Illinois at Chicago  
Child mental health services; HIV prevention and care; poverty

### Associate Dean for Doctoral Education

**Renee M. Cunningham-Williams** (<https://brownschool.wustl.edu/faculty-and-research/pages/renee-cunningham-williams.aspx>)  
Associate Professor; Director, NIDA T32 (TranSTAR) Pre- and Postdoctoral Training Program  
PhD, Washington University  
Epidemiological, prevention, and intervention research; health and mental health disparities; pathological gambling and comorbidity; risk taking, substance use and antisocial behaviors; crisis intervention

### Director, PhD Program in Public Health Sciences

**Douglas A. Luke** (<https://brownschool.wustl.edu/faculty-and-research/pages/douglas-luke.aspx>)  
Professor; Director, Center for Public Health Systems Science  
PhD, University of Illinois  
Systems science; evaluation of public health programs; tobacco control policy

## Endowed Professors

**Ross Brownson** (<https://brownschool.wustl.edu/faculty-and-research/pages/ross-brownson.aspx>)

Bernard Becker Professor  
PhD, Colorado State University  
Evidence-based public health; dissemination and implementation research; chronic disease prevention

**Debra Haire-Joshu** (<https://brownschool.wustl.edu/faculty-and-research/pages/debra-haire-joshu.aspx>)

Joyce Wood Professor  
PhD, Saint Louis University  
Obesity prevention; diabetes prevention; health policy

**Matthew Kreuter** (<https://brownschool.wustl.edu/faculty-and-research/pages/matthew-kreuter.aspx>)

Kahn Family Professor of Public Health  
PhD, University of North Carolina at Chapel Hill  
Health communication; health disparities

**Vetta Sanders Thompson** (<https://brownschool.wustl.edu/faculty-and-research/pages/vetta-sanders-thompson.aspx>)

E. Desmond Lee Professor of Racial and Ethnic Diversity  
PhD, Duke University  
Health and mental health disparities; cultural competency; race, identity and health

## Professors

**Timothy McBride** (<https://brownschool.wustl.edu/faculty-and-research/pages/timothy-mcbride.aspx>)

PhD, University of Wisconsin-Madison  
Health policy; health economics; rural health care

**Rodrigo Reis** (<https://brownschool.wustl.edu/Faculty-and-Research/Pages/Rodrigo-Reis.aspx>)

PhD, Federal University of Santa Catarina, Florianopolis, Brazil  
Physical activity; international health; urban design and health; transportation and health

## Associate Professors

**Derek Brown** (<https://brownschool.wustl.edu/faculty-and-research/pages/derek-brown.aspx>)

PhD, Duke University  
Health economics; health policy

**Alexis Duncan** (<https://brownschool.wustl.edu/faculty-and-research/pages/alexis-duncan.aspx>)

PhD, Saint Louis University  
Psychiatric and genetic epidemiology; obesity and eating disorders

**Amy Eyler** (<https://brownschool.wustl.edu/faculty-and-research/pages/amy-eyler.aspx>)

PhD, Oregon State University  
Physical activity; childhood obesity; prevention policy



**Jenine Harris** (<https://brownschool.wustl.edu/faculty-and-research/pages/jenine-harris.aspx>)

PhD, Saint Louis University  
Social network analysis; social media in public health

**Darrell Hudson** (<https://brownschool.wustl.edu/faculty-and-research/pages/darrell-hudson.aspx>)

PhD, University of Michigan  
Social determinants of health; health disparities

**Lora Iannotti** (<https://brownschool.wustl.edu/faculty-and-research/pages/lora-iannotti.aspx>)

PhD, Johns Hopkins University  
Child nutrition; infectious diseases; poverty pathways

**Kimberly Johnson** (<https://brownschool.wustl.edu/faculty-and-research/pages/kimberly-johnson.aspx>)

PhD, University of Minnesota  
Human genetics and cancer; epidemiology

**Jason Purnell** (<https://brownschool.wustl.edu/faculty-and-research/pages/jason-purnell.aspx>)

PhD, Ohio State University  
Health disparities; economic determinants of health

**Jean-Francois Trani** (<https://brownschool.wustl.edu/faculty-and-research/pages/jean-francois-trani.aspx>)

PhD, Institut d'Etudes Politiques de Paris, France  
Global health; human rights; disabilities

## Degree Requirements

### PhD in Public Health Sciences

- 72 credit units; 21 credits transferable from a relevant master's program
- Two years enrolled in full-time courses
- Complete and defend a dissertation
- Three teaching practicums for course credit
- Three research practicums for course credit

## Rehabilitation and Participation Science

The **Rehabilitation and Participation Science (RAPS) PhD** program aims to develop rehabilitation scientists whose research questions are chosen based explicitly on their potential to generate rehabilitation knowledge that will enhance health, improve quality of life, reduce illness and disability and optimize participation. In our doctoral training model, students devote the majority of their time to mentored research activities beginning in their first semester, and they then become increasingly independent. Students may choose rehabilitation and participation scientists who hold appointments in the occupational therapy program as mentors to help focus their study in the areas of chronic diseases, evidence-based care,

interventions, cognitive rehabilitation, neurorehabilitation, health promotion, decreasing secondary conditions, improving physical fitness for people with disabilities, and rehabilitation outcomes and informatics.

This program is designed to be completed in four to five years of full-time study. There is no provision for part-time study. A tuition stipend and fellowship are provided for up to four years, with the possibility of a one-year extension.

Graduates of the RAPS PhD program will be prepared for careers as academic research scientists.

Contact: Abby King  
Phone: 314-286-1619  
Website: <http://ot.wustl.edu/education/phd-in-rehabilitation-and-participation-science-142>

## Faculty

### Chair

**Lisa Tabor Connor**

Associate Dean and Director of Occupational Therapy Elias Michael Professor of Occupational Therapy and Professor of Neurology MA, Washington University PhD, Washington University

### Professors

**Carolyn Baum** (<https://www.ot.wustl.edu/about/our-people/m-carolyn-baum-10/>)

Professor of Occupational Therapy, Neurology and Social Work PhD, Washington University

**Chih-Hung Chang**

Professor of Occupational Therapy, Medicine and Orthopaedic Surgery  
PhD, University of Chicago

**Allison King** (<https://www.ot.wustl.edu/about/our-people/allison-king-48/>)

Professor of Occupational Therapy, Medicine, Pediatrics, Surgery (Prevention and Control) and Education  
MD, University of Missouri  
MPH, Saint Louis University  
PhD, Saint Louis University

### Associate Professors

**Susy Stark**

Associate Professor of Occupational Therapy, Neurology and Social Work  
PhD, University of Missouri-Columbia  
MS, Washington University School of Medicine, Program in Occupational Therapy

## Assistant Professors

**Erin Foster** (<https://www.ot.wustl.edu/about/our-people/erin-foster-32/>)

Assistant Professor of Occupational Therapy, Neurology and Psychiatry  
PhD, Washington University, Program in Occupational Therapy

**Kerri Morgan** (<https://www.ot.wustl.edu/about/our-people/kerri-morgan-63/>)

Assistant Professor of Occupational Therapy and Neurology  
PhD, Washington University School of Medicine, Program in Physical Therapy

**Benjamin Philip** (<https://www.ot.wustl.edu/about/our-people/benjamin-philip-73/>)

Assistant Professor of Occupational Therapy, Neurology and Surgery (Plastic and Reconstructive Surgery)  
PhD, Brown University

## Instructors

**Kelly Harris**

Instructor of Occupational Therapy and Surgery (Public Health Sciences)  
PhD, Washington University  
MA, Northwestern University

## Degree Requirements

### PhD in Rehabilitation and Participation Science

#### Applicant Background

Students pursue the RAPS PhD degree because of their desire to generate knowledge to improve rehabilitation practices and thus peoples' lives through participation. Students with a clinical degree at the bachelor's, master's or doctoral level are welcome to apply. Prior research experience is strongly encouraged.

#### Curriculum

Students must complete core courses, electives to support their area of study, research in their mentor's laboratory, a qualifying exam and a dissertation. Prior graduate courses that explicitly meet the program requirements may be considered (syllabus must be submitted for review and approval of the RAPS PhD chair).

All RAPS PhD students will join faculty in a weekly seminar where faculty and student research is presented and discussed. Presentations will also be made by Washington University faculty and visiting professors whose work will stimulate new areas of study.

## Core Courses

- Theories, Models and Classifications of Rehabilitation and Participation Science (RAPS, 3 units)
- Biopsychosocial Factors Affecting Performance (RAPS, 3 units)
- Environmental Factors and Participation (RAPS, 3 units)
- Measurement Theory and Development (RAPS, 3 units)
- Mentored Teaching Experience (RAPS, 1 unit)
- RAPS Seminar (RAPS, 1 unit)

Additional courses will be required in research design methods and graduate statistics.

## Research Units

It is expected that all students will be involved in research beginning their first semester and continuing through the completion of the degree. Prior to the completion of courses and the qualifying exam, each student is expected to spend at least 15 to 20 hours per week actively engaged in research. After passing the qualifying exam, students are expected to focus full-time on their dissertation and other research projects. It is anticipated that these efforts will lead to refereed publications and the student becoming an independent scientist.

## Romance Languages and Literatures

The Department of Romance Languages and Literatures offers **PhD programs in French Language and Literature** and in **Hispanic Studies**, preparing students for careers in university teaching and research as well as for diverse career options in areas that include higher education administration, libraries and special collections, and humanities and arts organizations. With our faculty's wide-ranging expertise, graduate students have opportunities to specialize in many areas of French, Francophone, Latin American, and Iberian cultures. We offer a broad range of study from medieval through contemporary, with opportunities to concentrate in a variety of different areas that reflect the areas of expertise of our faculty, including migrations and communities; popular literacy and cultural memory; early modern and modern cultural production; the intersections of literature, art, and the sciences; modernities and postmodernities; visual cultures and performance; and linguistics and language learning. The department also offers the **Graduate Certificate in Language Instruction**, which is open to PhD students in other disciplines as well as to those in the department's own graduate programs.

In both programs, students receive six years of funding.

## Contact Information

- PhD program in French Language and Literature (<https://rll.wustl.edu/french-graduate-programs/>)
- PhD program in Hispanic Studies (<https://rll.wustl.edu/hispanic-studies-graduate-programs/>)

For information about the combined degrees — the PhD in French & Comparative Literature and the PhD in Hispanic Studies & Comparative Literature — consult the Comparative Literature program (p. 55) page of this *Bulletin*.

Phone: 314-935-5175  
Email: [rll@wustl.edu](mailto:rll@wustl.edu)

## Faculty

### Chair

**Julie Singer** (<https://rll.wustl.edu/people/julie-singer/>)  
Professor of French  
PhD, Duke University

### Endowed Professors

**Mabel Moraña** (<https://rll.wustl.edu/people/mabel-morana/>)  
William H. Gass Professor in Arts & Sciences; Director of Latin American Studies Program  
PhD, University of Minnesota

**Elzbieta Sklodowska** (<https://rll.wustl.edu/people/elzbieta-sklodowska/>)  
Randolph Family Professor in Arts & Sciences  
PhD, Washington University

### Professors

**William Acree** (<https://rll.wustl.edu/people/william-acree/>)  
Professor of Spanish  
PhD, University of North Carolina at Chapel Hill

**Joe Barcroft** (<https://rll.wustl.edu/people/joe-barcroft/>)  
Professor of Spanish and Applied Linguistics  
PhD, University of Illinois at Urbana-Champaign

**J. Andrew Brown** (<https://rll.wustl.edu/people/j-andrew-brown/>)  
Professor of Spanish and Comparative Literature  
PhD, University of Virginia

**Pascal Ifri** (<https://rll.wustl.edu/people/pascal-ifri/>)  
Professor of French  
PhD, Brown University

**Tabea Linhard** (<https://rll.wustl.edu/people/tabea-alexander-linhard/>)  
Professor of Spanish  
PhD, Duke University

**Rebecca Messbarger** (<https://rll.wustl.edu/people/rebecca-messbarger/>)

Professor of Italian  
PhD, University of Chicago

**Ignacio Sánchez-Prado** (<https://rll.wustl.edu/people/ignacio-sanchez-prado/>)

Jarvis Thurston and Mona Van Duyn Professor in the Humanities  
Professor of Spanish and Latin American Studies  
PhD, University of Pittsburgh

**Julie Singer** (<https://rll.wustl.edu/people/julie-singer/>)

Professor of French  
PhD, Duke University

**Harriet A. Stone** (<https://rll.wustl.edu/people/harriet-stone/>)

Professor of French and Comparative Literature  
PhD, Brown University

**Akiko Tsuchiya** (<https://rll.wustl.edu/people/akiko-tsuchiya/>)

Professor of Spanish  
PhD, Cornell University

### Associate Professors

**Tili Boon Cuillé** (<https://rll.wustl.edu/people/tili-boon-cuille/>)

Associate Professor of French  
PhD, University of Pennsylvania

**Javier García-Liendo** (<https://rll.wustl.edu/people/javier-garcia-liendo/>)

Associate Professor of Spanish  
PhD, Princeton University

**Seth Graebner** (<https://rll.wustl.edu/people/seth-graebner/>)

Associate Professor of French  
PhD, Harvard University

**Ignacio Infante** (<https://rll.wustl.edu/people/ignacio-infante/>)

Associate Professor of Comparative Literature and Spanish  
PhD, Rutgers University

**Stephanie Kirk** (<https://rll.wustl.edu/people/stephanie-kirk/>)

Associate Professor of Spanish  
PhD, New York University

**Eloísa Palafox** (<https://rll.wustl.edu/people/eloisa-palafox/>)

Associate Professor of Spanish  
PhD, Michigan State University

### Assistant Professor

**Miguel Valerio** (<https://rll.wustl.edu/people/miguel-valerio/>)

PhD, Ohio State University

### Professors Emerita

**Nina Cox Davis** (<https://rll.wustl.edu/people/nina-cox-davis/>)

Associate Professor of Spanish  
PhD, Johns Hopkins University

### Elyane Dezon-Jones

Professor of French  
Doctorat de 3e Cycle, University of Paris

### Colette H. Winn (<https://rll.wustl.edu/people/colette-winn/>)

Professor of French  
PhD, University of Missouri-Columbia

## Professors Emeriti

### Stamos Metzidakis (<https://rll.wustl.edu/people/stamos-metzidakis/>)

Professor of French and Comparative Literature  
PhD, Columbia University

### Michel Rybalka

Professor of French  
PhD, University of California, Los Angeles

### Joseph Schraibman (<https://rll.wustl.edu/people/joseph-schraibman/>)

Professor of Romance Languages and Literatures  
PhD, University of Illinois at Urbana-Champaign

## Degree Requirements

Students in the Hispanic Studies PhD program take a required seminar in language teaching methodology in addition to the requirements specified below. Students in French complete a language teaching practicum. Optional pedagogical or interdisciplinary study can be acquired by means of one of the Graduate School's certificate programs.

## PhD in French Language and Literature

For the PhD in French Language and Literature, students take courses in all areas of French and Francophone studies, as well as a number of courses in a related secondary field of their choice, for a total of 60 credits at the graduate level. During their third semester, students take the AM exam. During the semester after they finish their courses, students take the PhD exam, for which they submit proposed syllabi for a two-semester sequence of undergraduate literature courses and two qualifying papers (potentially publishable articles of 25 pages, revised from seminar papers in two different periods). An oral exam by the entire faculty, based on these submissions, will follow. Students further defend their dissertation prospectuses before their thesis committees of three faculty members. They then have approximately two years to complete the research and writing of their dissertations, which they defend during the last semester of their programs.

## PhD in Hispanic Studies

For the PhD in Hispanic Studies, students take courses in all areas of Latin American and Iberian studies. During the fifth semester, students take comprehensive exams that are based on reading lists developed in consultation with faculty. After

passing their comprehensive exams, students submit and defend a dissertation prospectus. Students then research, write, defend, and submit their doctoral dissertation. Details of the program stages and requirements are available on the Hispanic Studies Graduate Programs page (<https://rll.wustl.edu/hispanic-studies-graduate-programs/>) of the Romance Languages and Literatures website.

## Graduate Certificate in Language Instruction

To provide our graduate students with additional qualifications and formal development that will make them strongly prepared for a range of demanding academic positions, the Department of Romance Languages and Literatures offers the Graduate Certificate in Language Instruction for students enrolled in PhD programs at Washington University.

The Graduate Certificate in Language Instruction is an interdisciplinary certificate related to the fields of applied linguistics, second-language acquisition, psychology, neuroscience and other disciplines that have important implications for the way that foreign languages are taught. Study within these different fields provides a fascinating examination of how second languages are learned and how the second language is generated by learners. An understanding of second-language acquisition processes both enriches our knowledge of how the mind works and serves to better inform the ways that foreign-language teachers design and implement curricular approaches for different levels and skills.

PhD students must apply to be considered for the certificate program at the beginning of their doctoral courses. Applications will be evaluated by a faculty committee twice a year, in October and March. The certificate consists of five courses: three required courses and two electives.

The goal of the five-course sequence is to provide certificate students with a solid base in the theoretical and instructional implications of research on language acquisition across different linguistic subsystems (i.e., phonology, lexis, syntax and pragmatics) and different linguistic modalities (i.e., spoken and written). This formation will also prepare students to be involved in language program design and curricular development.

For more information, visit the Graduate Certificate in Language Instruction page (<https://rll.wustl.edu/graduate-certificate-language-instruction/>), contact Professor Joe Barcroft (<https://rll.wustl.edu/people/joe-barcroft/>), or call 314-935-5175.

## Social Work

The objective of the PhD in Social Work is to prepare scholars for teaching and research careers in social work and related social and behavioral sciences. The program is highly interdisciplinary, and students have the opportunity to learn from faculty at the forefront of advances in practice and policy impact in areas such as social and economic development,

gerontology, health disparities, mental health, child and family welfare, violence prevention and intervention, and international social work. Our PhD program combines intensive study with personalized mentoring to prepare the next generation of scholars across the nation and around the world with the skills needed to effect change and advance social justice.

We have a very high completion rate. Most of our graduates go on to academic positions, where they pursue a rigorous research agenda while teaching and providing service and leadership to the school and the profession. Thus, we prepare doctoral students with the advanced quantitative and qualitative methodological training and professional skills needed to conduct research projects, successfully publish findings, present at highly regarded academic conferences, and apply the latest knowledge and instructional strategies in the classroom. The Brown School's collaborative community is strongly committed to providing an exciting and supportive learning environment.

A completed master's degree in social work or a related field is required of all applicants for admission. Post-master's experience in social work at the micro, mezzo or macro level is highly valued.

Contact: Doctoral Education Program Office  
Phone: 314-935-6605  
Email: phdsw@wustl.edu  
Website: <https://brownschool.wustl.edu/Academics/PhD-in-Social-Work>

## Faculty

### Dean

**Mary McKernan McKay** (<https://brownschool.wustl.edu/faculty-and-research/pages/mary-mckay.aspx>)  
Professor; Neidorff Family and Centene Corporation Dean of the Brown School  
PhD, University of Illinois at Chicago  
Child mental health services; HIV prevention and care; poverty

### Director, PhD Program in Social Work

**Melissa Jonson-Reid** (<https://brownschool.wustl.edu/faculty-and-research/pages/melissa-jonson-reid.aspx>)  
Ralph and Muriel Pumphrey Professor of Social Work; Director, Center for Violence and Injury Prevention  
PhD, University of California, Berkeley  
Education and child welfare services policy; child abuse and neglect; interagency service delivery systems; school social work

## Professors

**Wendy Auslander** (<https://brownschool.wustl.edu/faculty-and-research/pages/wendy-auslander.aspx>)

Barbara A. Bailey Professor of Social Work  
PhD, Washington University  
Health behavior and health promotion; childhood abuse and adolescent risk behaviors; trauma treatment for adolescent girls; family, psychosocial, and behavioral issues in diabetes; HIV prevention; community participatory research; cultural and ethnic factors related to health; intervention research and evaluation

**Ross C. Brownson** (<https://brownschool.wustl.edu/faculty-and-research/pages/ross-brownson.aspx>)

Bernard Becker Professor; Director, Prevention Research Center  
PhD, Colorado State University  
Chronic disease prevention through environmental and policy change; evidence-based public health; policy effects on physical activity and obesity; dissemination research

**F. Brett Drake** (<https://brownschool.wustl.edu/faculty-and-research/pages/brett-drake.aspx>)

PhD, University of California, Los Angeles  
Children born prenatally exposed to drugs; child protection and child protective practice

**Tonya Edmond** (<https://brownschool.wustl.edu/faculty-and-research/pages/tonya-edmond.aspx>)

Associate Dean for Diversity and Inclusion  
Associate Dean for Social Work  
PhD, University of Texas at Austin  
Violence against women; trauma-focused intervention research; evidence-based practice

**Michal Grinstein-Weiss** (<https://brownschool.wustl.edu/faculty-and-research/pages/michal-grinstein-weiss.aspx>)

Shanti K. Khinduka Distinguished Professor; Associate Dean for Policy Initiatives; Director, Envolve Center for Health Behavior Change  
PhD, Brown School at Washington University  
Public policy; economic & social mobility; asset building

**Shenyang Guo** (<https://brownschool.wustl.edu/faculty-and-research/pages/shenyang-guo.aspx>)

Frank J. Bruno Distinguished Professor of Social Work  
Research; Assistant Vice Chancellor for International Affairs - Greater China  
PhD, University of Michigan  
Quantitative research methodology; program and practice evaluations; child welfare; child mental health

**Debra Haire-Joshu** (<https://brownschool.wustl.edu/faculty-and-research/pages/debra-haire-joshu.aspx>)

Joyce Wood Professor; Director, Center for Diabetes Translation Research; Director, Center for Obesity Prevention and Policy Research; Faculty Director, Enolve Center for Health Behavior Change  
PhD, Saint Louis University  
Health policy; preventing obesity and diabetes in underserved populations; transdisciplinary approaches to biomedical, behavioral, and public health research

**Sean Joe** (<https://brownschool.wustl.edu/faculty-and-research/pages/sean-joe.aspx>)

Benjamin E. Youngdahl Professor of Social Development; Associate Dean for Faculty and Research  
PhD, University of Illinois at Urbana-Champaign  
Role of religion in black suicidal behavior; salivary biomarker discovery for adolescent suicidal behavior; father-focused family-based interventions; preventing self-destructive behaviors in African-American adolescent males; racial inequality in adolescent development

**Matthew W. Kreuter** (<https://brownschool.wustl.edu/faculty-and-research/pages/matthew-kreuter.aspx>)

Kahn Family Professor of Public Health; Senior Scientist, Health Communication Research Laboratory; Faculty Director, Enolve Center for Health Behavior Change  
PhD, University of North Carolina at Chapel Hill  
Health communication; cancer prevention and control; integrating health and social services; health disparities

**Carolyn Lesorogol** (<https://brownschool.wustl.edu/faculty-and-research/pages/carolyn-lesorogol.aspx>)

Associate Dean for Global Strategy and Programs  
PhD, Washington University  
International social development; capacity building and participatory development; institutional change; political economy; ethnographic research

**Douglas A. Luke** (<https://brownschool.wustl.edu/faculty-and-research/pages/douglas-luke.aspx>)

Director, PhD Program in Public Health Sciences; Director, Center for Public Health Systems Science  
PhD, University of Illinois  
Evaluations of public health programs; tobacco control and prevention policy; community health interventions

**Timothy McBride** (<https://brownschool.wustl.edu/faculty-and-research/pages/timothy-mcbride.aspx>)

PhD, University of Wisconsin-Madison  
Health policy; health economics; health insurance; Medicare and Medicaid policy; rural health care; health reform; Social Security and pensions; state health policy

**Nancy Morrow-Howell** (<https://brownschool.wustl.edu/faculty-and-research/pages/nancy-morrow-howell.aspx>)

Betty Bofinger Brown Distinguished Professor of Social Policy; Director, Harvey A. Friedman Center for Aging  
PhD, University of California, Berkeley  
Productive and civic engagement in late life; social engagement in later life

**Enola K. Proctor** (<https://brownschool.wustl.edu/faculty-and-research/pages/enola-proctor.aspx>)

Shanti K. Khinduka Distinguished Professor Emeritus; Director, Center for Mental Health Services Research  
PhD, Washington University  
Mental health services delivery; post-acute health and mental health community care; outcomes of clinical practice; evaluation of clinical social work

**Mark Rank** (<https://brownschool.wustl.edu/faculty-and-research/pages/mark-rank.aspx>)

Herbert S. Hadley Professor of Social Welfare  
PhD, University of Wisconsin  
Poverty and economic inequality; social welfare; family; social policy; demography; life course

**Rodrigo S. Reis** (<https://brownschool.wustl.edu/faculty-and-research/pages/rodrigo-reis.aspx>)

PhD, Federal University of Santa Catarina, Florianopolis, Brazil  
Physical activity and public health, with particular interest in community interventions for promoting physical activity; effect of the built environment and community on health; active transportation and health

**Michael Sherraden** (<https://brownschool.wustl.edu/faculty-and-research/pages/michael-sherraden.aspx>)

George Warren Brown Distinguished University Professor; Director, Center for Social Development  
PhD, University of Michigan  
Asset building; civic engagement and civic service; productive aging; social policy; community development; youth development

**Fred Ssewamala** (<https://brownschool.wustl.edu/faculty-and-research/pages/fred-ssewamala.aspx>)

William E. Gordon Distinguished Professor  
PhD, Brown School at Washington University  
Microfinance; Asset-based social programs; disadvantaged children; social and economic development policy; children and adolescent health

**Vetta L. Sanders Thompson** (<https://brownschool.wustl.edu/faculty-and-research/pages/vetta-sanders-thompson.aspx>)

E. Desmond Lee Professor of Racial and Ethnic Diversity  
PhD, Duke University  
Cultural competence; racial identity; disparities in health and mental health services; psychosocial implications of race and ethnicity in health communications; access to health services

## Associate Professors

**Derek Brown** (<https://brownschool.wustl.edu/faculty-and-research/pages/derek-brown.aspx>)

PhD, Duke University

Health economics; stated preference methods & health-related quality of life; child abuse and neglect; Medicaid

**Sheretta T. Butler-Barnes** (<https://brownschool.wustl.edu/faculty-and-research/pages/sheretta-butler-barnes.aspx>)

PhD, Wayne State University

Positive youth development; African Americans; academic achievement; mental health; religiosity

**Leopoldo J. Cabassa** (<https://brownschool.wustl.edu/faculty-and-research/pages/leopoldo-cabassa.aspx>)

PhD, Brown School at Washington University

Racial/ethnic disparities in health and mental health care; implementation science; integration of physical and mental health services; mental health services

**Renee M. Cunningham-Williams** (<https://brownschool.wustl.edu/faculty-and-research/pages/renee-cunningham-williams.aspx>)

Director, NIDA T32 (TranSTAR) Pre- and Postdoctoral Training Program

PhD, Washington University

Epidemiological, prevention, and intervention research; health and mental health disparities; pathological gambling and comorbidity; risk taking, substance use and antisocial behaviors; crisis intervention

**Alexis Duncan** (<https://brownschool.wustl.edu/faculty-and-research/pages/alexis-duncan.aspx>)

PhD, Saint Louis University

Psychiatric epidemiology; obesity and eating disorders; substance use and related disorders; comorbidity; child abuse and neglect; behavior genetics

**Amy A. Eyler** (<https://brownschool.wustl.edu/faculty-and-research/pages/amy-eyler.aspx>)

PhD, Oregon State University

Physical activity; childhood obesity; policies and preventative health

**Patrick J. Fowler** (<https://brownschool.wustl.edu/faculty-and-research/pages/patrick-fowler.aspx>)

PhD, Wayne State University

Housing and homelessness; child maltreatment and child welfare system; developmental psychopathology; policy and program evaluation; prevention science; violence exposure

**Ross Hammond** (<https://brownschool.wustl.edu/Faculty-and-Research/Pages/Ross-Hammond.aspx>)

Betty Bofinger Brown Associate Professor

PhD, University of Michigan

Modeling complex dynamics in social, economic, and public health systems; obesity etiology and prevention; food systems and food security; tobacco control

**Jenine Harris** (<https://brownschool.wustl.edu/faculty-and-research/pages/jenine-harris.aspx>)

PhD, Saint Louis University

Dissemination research; social network analysis; social media; public health systems

**Darrell Hudson** (<https://brownschool.wustl.edu/faculty-and-research/pages/darrell-hudson.aspx>)

PhD, University of Michigan

Health disparities; mental health; health behavior; health education; violence and injury prevention

**Lora Iannotti** (<https://brownschool.wustl.edu/faculty-and-research/pages/lora-iannotti.aspx>)

Associate Dean for Public Health

PhD, Johns Hopkins University

Young child nutrition; micronutrient deficiencies; infectious diseases and poverty pathways; evaluation research

**Kimberly Johnson** (<https://brownschool.wustl.edu/faculty-and-research/pages/kimberly-johnson.aspx>)

PhD, University of Minnesota

Epidemiology; human genetics; cancer

**Jack A. Kirkland** (<https://brownschool.wustl.edu/faculty-and-research/pages/jack-kirkland.aspx>)

MSW, Syracuse University

International & national community economic development; urban issues; international, state, and regional planning; international social development; multicultural education

**Patricia Kohl** (<https://brownschool.wustl.edu/faculty-and-research/pages/patricia-kohl.aspx>)

PhD, University of North Carolina at Chapel Hill

Child welfare; evidence-based practice; engaging hard to reach populations in treatment; parent training

**Von Nebbitt** (<https://brownschool.wustl.edu/faculty-and-research/pages/von-nebitt.aspx>)

PhD, Brown School at Washington University

Urban African-American children and youth, with a primary research agenda of increasing empirical and theoretical knowledge of the effects of living in urban public housing

**David A. Patterson** (<https://brownschool.wustl.edu/faculty-and-research/pages/david-patterson.aspx>)

PhD, University of Louisville  
Alcohol and other drug treatment retention and effectiveness; implementation of evidence-based practices; Native American and Indigenous People's health and wellness; underrepresented minority college success

**Jason Purnell** (<https://brownschool.wustl.edu/faculty-and-research/pages/jason-purnell.aspx>)

PhD, Ohio State University  
Health behavior; information and communication technologies; health disparities

**Lindsay Stark**

PhD, Columbia University  
Violence prevention; child welfare; women's health

**Jean-Francois Trani** (<https://brownschool.wustl.edu/faculty-and-research/pages/jean-francois-trani.aspx>)

PhD, Institut d'Etudes Politiques de Paris, France  
Mental health; disabilities; international social work

## Assistant Professors

**Ruopeng An** (<https://brownschool.wustl.edu/Faculty-and-Research/Pages/Ruopeng-An.aspx>)

PhD, Pardee RAND Graduate School  
Environmental influences on diet and exercise; obesity prevention; social and economic determinants of health

**Christine Ekenga** (<https://brownschool.wustl.edu/faculty-and-research/pages/christine-ekenga.aspx>)

PhD, New York University  
Chronic disease epidemiology; cumulative risk assessment; environmental health; occupational health; disaster epidemiology and public health preparedness

**Vanessa Fabbre** (<https://brownschool.wustl.edu/faculty-and-research/pages/vanessa-fabbre.aspx>)

PhD, University of Chicago  
Aging and the life course; health and mental health; gender and sexuality; interpretive methodology

**Tyriesa Howell** (<https://brownschool.wustl.edu/Faculty-and-Research/Pages/Tyriesa-Howell.aspx>)

PhD, Howard University  
Sexual health; reproductive health; health interventions; racial disparities in health; social work education

**Husain Lateef** (<https://brownschool.wustl.edu/Faculty-and-Research/Pages/Husain-Lateef.aspx>)

PhD, Arizona State University  
African American youth; African-centered social work; culturally responsive practice; interprofessional practice (social work and law)

**Sojung Park** (<https://brownschool.wustl.edu/faculty-and-research/pages/sojung-park.aspx>)

PhD, University of Michigan  
Health and well-being of older adults; environmental gerontology; community-based long-term care; cross-national/cross-cultural studies

**Deborah Salvo**

PhD, Emory University  
Physical activity and spatial epidemiology; obesity prevention and nutrition; chronic disease prevention; global health disparities

## Degree Requirements

### PhD in Social Work

A completed master's degree in social work, public health or a related social science field is required of all applicants for admission; a minimum of two years of post-master's practice and/or research experience is strongly recommended. The deadline for applications to the PhD in Social Work is December 1 of the year preceding enrollment.

Students need a minimum of 72 graduate credits for a PhD from the Brown School. These can include 21 master's-level credits. While in the program, the student takes a variety of theory and research methods courses, plus 15 units of elective credits, at least 3 units of which have to be taken outside of the Brown School. Electives may include classes in psychology, psychiatry, public health, anthropology, education, law, economics or political science. Teaching practica, research assistantships, and the writing of an "area statement" round out the required credits. Competence is assessed through a qualifying examination and the defense of the dissertation. We are unable to offer distance learning or part-time study.

The curriculum at the Brown School emphasizes substantive, theoretical and methodological preparation. Courses (<http://bulletin.wustl.edu/brownschool/#courses>) may include the following:

- Introduction to Advanced Research
- Conceptual Foundations of Social Science Research
- The Role and Use of Theory in Applied Social Research
- Foundations of Data Analysis
- Applied Linear Regression Analysis
- Data Management
- Professional Development

The first year of study includes basic principles of research, statistics and measurement as well as theoretical orientations and content underlying the knowledge base of social work and social welfare.



The second year turns to a more individualized program of study. A curriculum plan is developed by each student and their adviser, and it focuses on an area of specialization within the field of social work.

The orientation of the PhD program is interdisciplinary, requiring 15 credits of course work in the social sciences. Social science courses related to the student's developing area of specialization are selected. Courses in research methodology, research and teaching practica as well as specialized courses also help to build the student's expertise as a social work scholar.

## Sociology

Following in the tradition of Du Bois, the Department of Sociology strives to employ diverse methodological approaches to produce rigorous empirical research in order to understand the origins and reproduction of social inequality, especially as it relates to issues of pressing public concern and possible solutions to social problems. Re-established in 2020, our graduate program prepares its students for active careers in scholarly research and teaching as well as public engagement, with a primary focus on the fields of race/ethnicity, gender, work and organizations, education, family, immigration, health, policing and criminal justice, social movements, social policy, and economic inequality. Graduate students work closely with our faculty in mentoring and collaborative relationships that encourage students' production and publication of original research and that prepare them for careers as experts in their subfields. By equipping our students with a broad set of theoretical perspectives, methodological skills, and professional experiences, the Department of Sociology sets the groundwork for our graduates to make major contributions to the discipline and to society at large.

Contact: Kaitlyne A. Motl, PhD  
Phone: 314-935-5790  
Email: kaitlyne.motl@wustl.edu  
Website: <http://sociology.wustl.edu>

## Faculty

### Professors

**Timothy Bartley** (<http://sociology.wustl.edu/people/timothy-bartley/>)

Professor

PhD, University of Arizona

**Caitlyn Collins** (<http://sociology.wustl.edu/people/caitlyn-collins/>)

Assistant Professor

PhD, University of Texas at Austin

**David Cunningham** (<http://sociology.wustl.edu/people/david-cunningham/>)

Professor

PhD, University of North Carolina at Chapel Hill

**Michael Esposito** (<https://sociology.wustl.edu/people/michael-esposito/>)

Assistant Professor

PhD, University of Washington

**Steven Fazzari** (<http://sociology.wustl.edu/people/steven-fazzari/>)

Bert A. and Jeanette L. Lynch Distinguished Professor

PhD, Stanford University

**Cynthia Feliciano** (<https://sociology.wustl.edu/people/cynthia-feliciano/>)

Professor

PhD, University of California, Los Angeles

**Patrick Ishizuka** (<https://sociology.wustl.edu/people/patrick-ishizuka/>)

Assistant Professor

PhD, Princeton University

**Hedwig Lee** (<http://sociology.wustl.edu/people/hedwig-lee/>)

Professor

PhD, University of North Carolina at Chapel Hill

**Zakiya Luna** (<https://sociology.wustl.edu/people/zakiya-t-luna/>)

Associate Professor

PhD, University of Michigan

**Margot Moinester**

Assistant Professor

PhD, Harvard University

**Jake Rosenfeld** (<http://sociology.wustl.edu/people/jake-rosenfeld/>)

Professor

PhD, Princeton University

**Ariela Schachter** (<http://sociology.wustl.edu/people/ariela-schachter/>)

Assistant Professor

PhD, Stanford University

**Adia Harvey Wingfield** (<http://sociology.wustl.edu/people/adia-harvey-wingfield/>)

Mary Tileston Hemenway Professor in Arts & Sciences

PhD, Johns Hopkins University

## Degree Requirements

### Overview

The PhD program is a six-year degree program. Although students will normally earn a master's degree on the way to the PhD, we do not offer a stand-alone master's degree program. All required course work is meant to be completed within the

first three years, although students may continue to take elective courses after the third year. The program is designed in an integrated and streamlined way so that students have ample opportunity to develop research on their own and with faculty and peers. Graduate students will be expected to participate in professional socialization activities including departmental colloquiums, departmental workshops, and departmental mini-conferences, among other opportunities.

## Research Collaboration with Faculty

During their first three semesters, students will engage in a required collaborative research project with their faculty mentor. These research collaborations will integrate students into a faculty member's research. Students will work closely with their faculty mentor on a particular project, ideally resulting in a jointly-authored publication early in students' program of study. Research collaborations will often continue informally past the third semester.

## Core Courses

- Professional Development
- Central Questions and Approaches in Sociology
- Sociological Theory
- Research Design
- Quantitative Methods
- Qualitative Methods
- Professional Writing

## Electives

Other substantive or methods courses in sociology will be offered that reflect our faculty's research and methodological areas (<https://sociology.wustl.edu/browse/>) of expertise. With departmental approval, advanced methods courses may be taken in other departments and count toward degree requirements.

## Master's Thesis

The master's thesis/empirical paper is an important milestone and a major publication opportunity. Midway through the second year, students will have assembled a committee of three faculty members and received detailed collective feedback on their research. By the end of the summer after their second year, students will complete a draft of their thesis/paper and submit it to their adviser for feedback. By the end of the fifth semester, students will have polished their thesis/paper in the professional writing seminar, defended it before their faculty committee, and submitted the research for publication.

## Mentored Experiences

Students participate in a Mentored Experience (<https://graduateschool.wustl.edu/mte/>) for at least three semesters. At least two of those will be Mentored Teaching Experiences (MTEs), and one may be a Mentored Professional Experience (MPE). Most students will engage in a Mentored Teaching Experience for three semesters.

## Qualifying Exam Paper

After completing the required course work and the master's thesis/empirical paper, students will write one qualifying exam paper that demonstrates their expertise in two particular subfields of the discipline. Students will choose **two** reading lists developed by the faculty that will contain central contributions to major areas of study (<https://sociology.wustl.edu/browse/>), such as race and ethnicity, gender, family, immigration, political sociology and social movements, economic sociology, health, work and organizations, social policy and practice, policing and criminal justice, and education. Students will be encouraged to add supplemental readings that pertain to their specific emerging research interests.

After reading the material on the two lists, students will write a single paper that identifies important areas of overlap or divergence in the two sociological subfields, that applies insights from one subfield to another, or otherwise reviews the existing research in a novel way. This process should produce a paper with original insights, potentially suitable for publication in one of several journals that explicitly welcomes agenda-setting or review articles. This paper will typically be completed by the end of the third year.

## Dissertation Proposal

After completing the qualifying exam, students should write a dissertation proposal that describes the motivation and plan for their research. They will receive feedback on drafts of the proposal from a committee they have assembled that consists of at least three faculty members. A final dissertation proposal must be defended before the committee, no later than the second semester of the fourth year.

## Dissertation

The PhD dissertation should be an integrated, coherent, and original work. It may be modeled on a book manuscript that builds from an introduction and description of the research to a series of empirical chapters. Alternatively, it may take a "three-paper" format, in which each chapter takes the form of a paper that could be submitted for publication on its own. According to the Graduate School degree requirements (<https://graduateschool.wustl.edu/degree-req/>), the dissertation must be defended before a committee of five faculty members, including at least three faculty members from this department and one person from another department or university.

## Speech and Hearing Sciences

The **PhD in Speech and Hearing Sciences** prepares students for academic and research careers in the field. Established in 1947, the program is dedicated to fostering scientific inquiry in speech and hearing sciences and related disciplines. The program is administered jointly between the Graduate School and the Program in Audiology and Communication Sciences in the Washington University School of Medicine.

Phone: 314-747-0104  
Email: [pacs@wustl.edu](mailto:pacs@wustl.edu)  
Website: <http://pacs.wustl.edu>

### Faculty

#### Chair

**Amanda Ortmann** (<https://pacs.wustl.edu/people/amanda-j-ortmann-phd/>)

Program Director and Assistant Professor  
PhD, University of Pittsburgh

#### Faculty List

For our full faculty list, please visit our faculty webpage (<http://pacs.wustl.edu/our-faculty/>).

### Degree Requirements

#### PhD in Speech and Hearing Sciences

#### Curriculum

The curriculum combines interdisciplinary academic courses, teaching experiences, and research, and it culminates in a dissertation. Each student's experience can be tailored to their individual interests.

Generally, 24 units of graduate credit can be transferred toward the PhD from another institution; graduates of our Doctor of Audiology (AuD) and Master of Science in Deaf Education (MSDE) programs are provided with advanced standing and may transfer up to 48 or 36 credit units, respectively.

#### Teaching Experiences

Teaching experiences prepare students to become effective teachers and communicators of their discipline and their own research. All PhD students receive instruction in pedagogy and complete teaching experiences at the introductory and advanced levels under the guidance of a faculty mentor.

#### Research

Students immerse themselves in the world-class research environment of Washington University. As they conduct their own original research, which culminates in a dissertation, they participate in colloquia, Grand Rounds, brown bag seminars,

research seminars, journal clubs and similar opportunities. The program fosters opportunities to publish and to participate in professional conferences. During the final year of the program, students present and defend their dissertations.

The Program in Audiology and Communication Sciences (PACS) is affiliated with the Department of Otolaryngology, which operates one of the nation's largest hearing and deafness research programs. Topics include adult aural rehabilitation, biology of hearing and deafness, childhood deafness, cochlear implants, dizziness and balance, and hearing aids.

## Theater and Performance Studies

The **master's program in Theater and Performance Studies** at Washington University in St. Louis is one of the strongest programs of its kind. Students are offered rigorous scholarly training, opportunities to meet and work with visiting scholars and artists, and support in developing their own independent research projects, all within a collaborative, collegial environment that prizes critical thinking and creative practice.

Our students enroll in small, intensive seminars in theater history and performance theory as well as studio courses in directing, playwriting and theatre for social change. There are ample opportunities for interdisciplinary study, and we have strong relationships with affiliate faculty in allied departments and programs, including Film and Media Studies, English, Music, Comparative Literature, African and African-American Studies, and Women, Gender, and Sexuality Studies.

Our faculty has been recognized with numerous accolades for both their artistic and scholarly work, and the small size of each admitted class allows for individual attention and one-on-one mentorship. We routinely place our graduates in top PhD programs in the field, including those at Brown, Stanford, Northwestern, University of California San Diego, and University of Minnesota. Other graduates have pursued careers in the arts, social justice work and education. We invite students who have studied theater and performance as undergraduates as well as students who are following new paths in their scholarship to learn more about our program.

Contact: Paige McGinley  
Phone: 314-935-6106  
Email: [pmcginley@wustl.edu](mailto:pmcginley@wustl.edu)  
Website: <http://pad.artsci.wustl.edu/graduate>

### Faculty

#### Professors

**Robert Henke** (<https://pad.wustl.edu/people/robert-henke/>)

PhD, University of California, Berkeley  
Ancient and Renaissance Theater and Performance,  
Comparative Literature, Dramatic Theory

**Henry I. Schvey** (<https://pad.wustl.edu/people/henry-i-schvey/>)

PhD, Indiana University  
Modern American and European Drama, Shakespeare in Production, Expressionism and the Arts, Tennessee Williams

## Associate Professors

**Pannill Camp** (<https://pad.wustl.edu/people/pannill-camp/>)

PhD, Brown University  
18th-Century French Theater, Dramatic Theory, Theater Architecture

**Paige McGinley** (<https://pad.wustl.edu/people/paige-mcginley/>)

PhD, Brown University  
20th-Century Theater and Performance; Race, Ethnicity and Performance; American Studies

**Julia Walker** (<https://pad.wustl.edu/people/julia-walker/>)

PhD, Duke University  
Theatrical Modernism, Performance Theory, History of Acting

## Assistant Professors

**Joanna Dee Das** (<https://pad.wustl.edu/people/joanna-dee-das/>)

PhD, Columbia University  
Global Dance History & Theory, Politics of Performance, African Diasporic Dance, Musical Theater, Cultural Policy

**Rhaisa Williams** (<https://pad.wustl.edu/people/rhaisa-williams/>)

PhD, Northwestern University  
Performance theory; African-American studies; gender; archival studies

## Teaching Professors

**Robert Mark Morgan** (<https://pad.wustl.edu/people/robert-mark-morgan/>)

MFA, San Diego State University  
Scenic Design

**Andrea Urice** (<https://pad.wustl.edu/people/andrea-urice/>)

MFA, University of Virginia  
Directing, Acting, Creative Studies

## Professors of Practice

**Christine Knoblauch-O'Neal** (<https://pad.wustl.edu/people/christine-knoblauch-oneal/>)

PhD, Texas Women's University  
Ballet, Applied Anatomy, Musical Theater, Performance Studies

**David Marchant** (<https://pad.wustl.edu/people/david-marchant/>)

MFA, University of Iowa  
Modern Dance, Composition, Improvisation, Alexander Technique, Somatic Studies

**Jeffery Matthews** (<https://pad.wustl.edu/people/jeffery-matthews/>)

MFA, Virginia Commonwealth University  
Acting, Directing, Voice and Speech

**Annamaria Pileggi** (<https://pad.wustl.edu/people/annamaria-pileggi/>)

MFA, Brandeis University  
Acting, Movement, Musical Theater, Robotics and Expressive Simulation, Theatre for Social Change

**Cecil Slaughter** (<https://pad.wustl.edu/people/cecil-slaughter/>)

MFA, University of Iowa  
Dance

**William Whitaker** (<https://pad.wustl.edu/people/william-whitaker/>)

MFA, Florida Atlantic University  
Acting, Directing

## Artist-in-Residence

**Ron Himes** (<https://pad.wustl.edu/people/ron-himes/>)

Henry E. Hampton, Jr. Artist-in-Residence  
BA, Washington University  
African-American Theater

## Senior Lecturer and Senior Playwright-in-Residence

**Carter W. Lewis** (<https://pad.wustl.edu/people/carter-w-lewis/>)

MA, University of Oklahoma  
Playwriting, Dramaturgy, A.E. Hotchner Playwriting Festival

## Senior Lecturer

**Sean Savoie** (<https://pad.wustl.edu/people/sean-savoie/>)

MFA, University of Cincinnati - College Conservatory of Music  
Lighting Design, Production Management

## Lecturer

**Dominique Glaros** (<https://pad.wustl.edu/people/dominique-glaros/>)

MFA, University of Cincinnati-College Conservatory of Music  
Costume Design

## Professor Emerita

**Mary-Jean Cowell** (<https://pad.wustl.edu/people/mary-jean-cowell/>)

PhD, Columbia University  
Modern Dance Technique, Theory and Composition, Dance History and Ethnology

## Degree Requirements

### Master of Arts in Theater and Performance Studies

**Total units required:** 36 units (12 courses at the 400 level or above)

**Note:** Students must be enrolled in 9 graduate credits each semester to retain full-time status.

#### I. Required courses: 18 units (6 courses)

1. **L15 Drama 5101 Introduction to Graduate Study.** As a general introduction to advanced scholarship in theater and performance studies, this course is designed to familiarize first-year graduate students with expectations for advanced research and professional writing. It is also intended to provide an overview of theater and performance studies, focusing on the relationship between these two scholarly domains, major works of scholarship that have defined the field, and current debates redrawing its contours.
2. **L15 Drama 449 Seminar in Dramatic Theory.** An in-depth exploration of core works of dramatic theory from the ancient world to the present, this course focuses on texts that enunciate what theater is, has been and should be. Readings address theater's role in society, the anti-theatrical prejudice, the aesthetic pleasures of drama and theater, theater as a means of educating the citizen, and the relationship between dramatic form and social and political revolution.
3. **L15 Drama 497 Performance Theory.** This course introduces students to contemporary theories of performance, with "performance" understood as both metaphor and event. From a multidisciplinary perspective, students will consider how cultures produce meanings — and, indeed, perform those meanings — to create and/or disrupt their own social coherence. Theorists studied include J.L. Austin, Victor Turner, Erving Goffman and Judith Butler.
4. **Theater/Performance History.** One 400- or 500-level historically-based seminar from a list of approved courses taught *within* the Performing Arts Department. (Topics vary by semester.)
5. **Theater Practice.** At least one (but no more than three) 400- or 500-level course(s) in theater practice: dramaturgy, directing, playwriting or design. Students may meet this requirement with L15 Drama 506 Problems in Contemporary Arts Practice Research.
6. Master of Arts students in Theater and Performance Studies should develop knowledge of and appreciation for aesthetic forms, intellectual paradigms, and cultural conditions beyond the largely white, Eurocentric approaches that have prevailed in the modern university curriculum. To that end, students will complete at least **one graduate-level course**

**examining drama, theater, and/or performance that emerges from racial and/or ethnic communities whose contributions have been historically underrepresented in our field.** Eligible courses include those home-based in the Performing Arts Department as well as approved courses offered through other Arts & Sciences departments.

#### II. Electives: 15 units (5 courses)

Students are invited to develop a broad-based or specialized curriculum in theater and performance studies, choosing courses from within the Performing Arts Department (including Dance) or as many as four courses (12 units) from without. The program works closely with faculty affiliates in other departments, including Anthropology; Classics; English (and non-Anglophone languages and literatures); Film and Media Studies; Music; Women, Gender, and Sexuality Studies; and the Sam Fox School of Design & Visual Arts.

#### III. Master's Research (3 units)

The capstone to the master's degree is the completion of an essay of publishable length (typically 25 double-spaced pages) and quality. This essay is based on a seminar paper written during the student's first three semesters in the program, and it is extensively revised and expanded under the guidance of an adviser. After the revised seminar paper has been submitted to and approved by the director of graduate studies, the student will meet with a committee of three faculty members for an oral exam.

### Accelerated Master of Arts in Theater and Performance Studies

This program allows qualified Washington University undergraduates to complete a Master of Arts (AM) degree in a one-year accelerated program after earning the Bachelor of Arts (AB) degree in drama. The undergraduate and graduate degrees are awarded sequentially, if approved, with admission to the Accelerated AM program occurring during the fall semester after completion of the AB degree during the preceding December, May or August. Applications may be submitted at any time during the student's senior year through August 1, and GRE tests are not required. The program is available only to senior students and only for continuous enrollment the next year. There is no option for deferred admission.

The requirements for the Accelerated AM are identical to those for the traditional AM, as detailed above. To complete the AM in one year, students may apply five undergraduate courses at the 400 level or above (a maximum of 16 units) toward the master's degree. Undergraduate courses must be acceptable to the director of graduate studies, and they must be completed with a final grade of B or higher.

Interested students should contact the director of graduate studies, Paige McGinley ([pmcginley@wustl.edu](mailto:pmcginley@wustl.edu)) ([pmcginley@wustl.edu](mailto:pmcginley@wustl.edu)), during their sophomore or junior year for additional information and application instructions.

## Urban Studies

Why is the study of urban life — of living in cities — an important area of study? The answer is simple. As a result of increasing urbanization (i.e., the dynamics that result from people moving into densely populated areas), worldwide projections show that increases in urban populations are occurring everywhere. World cities are growing by one million people per week, and demographers suggest that, by 2050, more than two-thirds of the planet's population will be urban dwellers. The issues that affect our densely populated cities and the people who inhabit them will be the focus of substantive research and policy debates in the 21st century. Because we seek to prepare our students to be leaders on the world stage, the in-depth study of urbanism and urbanization on both the national and international scales is critical.

The Graduate Certificate Program in Urban Studies is administered by the Urban Studies program and the Graduate School. The Urban Studies program director, Professor Carol Camp Yeakey, is responsible for the Graduate Certificate Program.

Contact:	Carol Camp-Yeakey
Phone:	314-935-6241
Email:	<a href="mailto:cyeakey@wustl.edu">cyeakey@wustl.edu</a>
Website:	<a href="http://urbanstudies.wustl.edu/programs/graduate-certificate-program">http://urbanstudies.wustl.edu/programs/graduate-certificate-program</a>

## Faculty

### Founding Director

**Carol Camp Yeakey** (<https://education.wustl.edu/people/carol-camp-yeakey/>)

Marshall S. Snow Professor of Arts & Sciences  
Professor  
Founding Director, Interdisciplinary Program in Urban Studies  
Founding Director, Center on Urban Research & Public Policy (CURPP)  
PhD, Northwestern University  
(Education)

### Professors

**John G. Baugh Jr.** (<http://psychweb.wustl.edu/people/john-baugh/>)

Margaret Bush Wilson Professor in Arts & Sciences  
PhD, University of Pennsylvania  
(Linguistics)

**John R. Bowen** (<https://anthropology.wustl.edu/people/john-bowen/>)

Dunbar–Van Cleve Professor in Arts & Sciences  
PhD, University of Chicago  
(Anthropology)

**Adrienne D. Davis** (<https://law.wustl.edu/faculty-staff-directory/profile/adrienne-davis/>)

William M. Van Cleve Professor of Law  
JD, Yale University  
(Law)

**Gerald L. Early** (<https://english.wustl.edu/people/gerald-early/>)

Merle Kling Professor of Modern Letters  
PhD, Cornell University  
(English)

**Steven Fazzari** (<https://economics.wustl.edu/people/steven-fazzari/>)

Bert A. and Jeanette L. Lynch Distinguished Professor of Economics  
PhD, Stanford University  
(Economics)

**James L. Gibson** (<https://polisci.wustl.edu/people/james-l-gibson/>)

Sidney W. Souers Professor of Government  
PhD, University of Iowa  
(Political Science)

**John Hoal** (<http://samfoxschool.wustl.edu/directory/60/>)

PhD, Washington University  
(Architecture)

**Bruce Lindsey** (<https://samfoxschool.wustl.edu/directory/39/>)

E. Desmond Lee Professor for Community Collaboration, Sam Fox School of Design & Visual Arts  
MArch, Yale University  
(Architecture)

**William R. Lowry** (<https://polisci.wustl.edu/people/william-lowry/>)

PhD, Stanford University  
(Political Science)

**Eric Mumford** (<http://samfoxschool.wustl.edu/directory/487/>)

Rebecca & John Voyles Professor of Architecture  
PhD, Princeton University  
(Architecture)

**Kimberly Jade Norwood** ([http://law.wustl.edu/faculty\\_profiles/profiles.aspx?id=303](http://law.wustl.edu/faculty_profiles/profiles.aspx?id=303))

Henry H. Oberschelp Professor of Law  
JD, University of Missouri  
(Law)

**Timothy H. Parsons** (<https://history.wustl.edu/people/timothy-parsons/>)

PhD, Johns Hopkins University  
(History)

**Will R. Ross** (<https://renal.wustl.edu/bio/will-ross-md-mph/>)

Alumni Endowed Professor of Medicine  
MD, Washington University  
(Medicine)

**Vetta L. Sanders Thompson** (<https://brownschool.wustl.edu/Faculty-and-Research/Pages/Vetta-Sanders-Thompson.aspx>)

E. Desmond Lee Professor of Racial and Ethnic Diversity  
PhD, Duke University  
(Social Work)

**Karen L. Tokarz** (<https://law.wustl.edu/faculty-staff-directory/profile/karen-tokarz/>)

Charles Nagel Professor of Public Interest Law & Public Service  
JD, Saint Louis University  
LLM, University of California, Berkeley  
(Law)

**Denise Ward-Brown** (<http://samfoxschool.wustl.edu/directory/549/>)

MFA, Howard University  
(Art)

**James V. Wertsch** (<https://anthropology.wustl.edu/people/james-wertsch/>)

David R. Francis Distinguished Professor  
PhD, University of Chicago  
(Anthropology)

**Rafia Zafar** (<https://english.wustl.edu/people/rafia-zafar/>)

PhD, Harvard University  
(English)

## Associate Professors

**Sheretta Tekise Butler-Barnes** (<http://urbanstudies.wustl.edu/people/sheretta-butler-barnes/>)

PhD, Wayne State University  
(Social Work)

**Lingchei Letty Chen** (<https://ealc.wustl.edu/people/lingchei-letty-chen/>)

PhD, Columbia University  
(East Asian Languages and Cultures)

**Mary Ann Dzuback** (<https://education.wustl.edu/people/mary-ann-dzuback/>)

PhD, Columbia University  
(Education)

**Rowhea Elmesky** (<https://education.wustl.edu/people/rowhea-elmesky/>)

PhD, Florida State University  
(Education)

**Clarissa Hayward** (<https://polisci.wustl.edu/people/clarissa-rile-hayward/>)

PhD, Yale University  
(Political Science)

**Shanti A. Parikh** (<https://anthropology.wustl.edu/people/shanti-parikh/>)

PhD, Yale University  
(Anthropology)

**Sunita A. Parikh** (<https://polisci.wustl.edu/people/sunita-parikh/>)

PhD, University of Chicago  
(Political Science)

**Michelle A. Purdy** (<http://education.wustl.edu/people/michelle-purdy/>)

PhD, Emory University  
(Education)

**Nancy Y. Reynolds** (<https://history.wustl.edu/people/nancy-reynolds/>)

PhD, Stanford University  
(History)

## Assistant Professor

**Ebony Duncan** (<https://education.wustl.edu/people/ebony-m-duncan-shippy/>)

PhD, Vanderbilt University  
(Sociology; Education)

## Senior Lecturer

**Gay Goldman Lorberbaum** (<http://www.samfoxschool.wustl.edu/directory/475/>)

MArch, Washington University  
(Architecture)

## Degree Requirements

### Graduate Certificate in Urban Studies

The Graduate Certificate in Urban Studies is open to PhD students in any discipline. It is administered by the Center on Urban Research and Public Policy in accordance with the Graduate School's general requirements for graduate certificates.

Specifically, the graduate certificate requires the successful completion of five courses (two core courses and three electives) for a total of 15 graduate units. A maximum of two of these five courses may also be counted toward the PhD.

## Women, Gender, and Sexuality Studies

### Master of Arts in Women, Gender, and Sexuality Studies

The Master of Arts in Women, Gender, and Sexuality Studies (WGSS) at Washington University provides students with advanced training in issues of gender, sexuality, race/ethnicity, class, and disability. Whether they come from a gender and sexuality studies background already or are looking to supplement their work in another field with a gender and sexuality studies perspective, this program helps students to explore the issues that matter to them. In addition to solidifying students' abilities to educate others in gender and sexuality issues and to integrate intersectional approaches with varied social issues and workplace challenges, this program can help students to develop specializations in a subfield appropriate for their individual plans and goals.

An understanding of gender and sexuality is central to discussions of law, social work, public health, economic inequality, business, and human rights. This program will prepare students to have the breadth and specialized knowledge that is increasingly needed and looked for in the workplace. Students will learn to think intersectionally — to understand the ways in which multiple identities interact with structural, social, and cultural inequalities — and to pursue interdisciplinary approaches to problems confronting the contemporary world.

### Joint Juris Doctor/Master of Arts in Women, Gender, and Sexuality Studies

The Juris Doctor/Master of Arts in Women, Gender, and Sexuality Studies is a truly joint program in which students, under close mentoring by WGSS and law faculty, take a carefully selected set of courses tailored to the student's interest in the Law School and in the Graduate School. This program is designed to prepare lawyers with a deep understanding of the cultural impacts of gender and sexuality in the workplace, in policy, and in law.

### Graduate Certificate in Women, Gender, and Sexuality Studies

Our graduate certificate program allows students in PhD programs to enhance their disciplinary studies with a concentration in gender studies.

This program offers graduate certificate students an opportunity to meet and work with graduate students in other departments. Graduate certificate students are on the program's mailing lists, and they are invited to participate in a variety of events, including special guest lectures, conferences, faculty searches and informal gatherings.

In WGSS, graduate certificate students may engage in a teaching pedagogy opportunity if they so wish. The teaching pedagogy opportunity in WGSS takes place over two semesters. During the first semester, students undergo teaching preparation in which they observe the class that they will teach; they are mentored by the instructor, and they attend instructor meetings devoted to examining content and pedagogy. In addition, they develop a syllabus — often in consultation with their WGSS teaching mentor and their department adviser — that is reviewed carefully by WGSS faculty. These students may be undergoing mentored teaching experiences in their own departments during this first semester. During the next semester, students teach the WGSS course, and they are observed by WGSS faculty and, in some cases, by faculty in their own departments. These faculty use a rubric for their assessment that is made available to the student; students receive a written assessment that they then discuss with the observing WGSS faculty member. Sometimes students are observed and assessed more than once. Participation in this program broadens students' teaching experiences and their credentials for future job opportunities. The following departments are involved in this program: Anthropology, Art History, Education, English, German, History, Philosophy, Political Science, and Romance Languages and Literatures.

Phone: 314-935-5102  
Email: [wgss@wustl.edu](mailto:wgss@wustl.edu)  
Website: <http://wgss.artsci.wustl.edu>

## Faculty

### Chair

**Rebecca Wanzo** (<https://wgss.wustl.edu/people/rebecca-wanzo/>)

Professor, Women, Gender, and Sexuality Studies  
PhD, Duke University  
(Women, Gender, and Sexuality Studies)

### Core Faculty

**Barbara Baumgartner** (<https://wgss.wustl.edu/people/barbara-baumgartner/>)

Director of Undergraduate Studies and Teaching Professor  
PhD, Northwestern University  
(Women, Gender, and Sexuality Studies; English)



**Heather Berg** (<https://wgss.wustl.edu/people/heather-berg/>)

Assistant Professor  
PhD, University of California, Santa Barbara  
(Women, Gender, and Sexuality Studies; Feminist Studies)

**Rachel Brown** (<https://wgss.wustl.edu/people/rachel-brown/>)

Assistant Professor  
PhD, The Graduate Center, City University of New York  
(Women, Gender, and Sexuality Studies; Political Science)

**Ivan Bujan** (<https://wgss.wustl.edu/people/ivan-bujan/>)

Post-Doctoral Fellow  
Northwestern University  
(Women, Gender, and Sexuality Studies; Performance Studies)

**Shefali Chandra** (<https://history.wustl.edu/people/shefali-chandra/>)

Associate Professor  
PhD, University of Pennsylvania  
(Women, Gender, and Sexuality Studies; History)

**Amy Cislo** (<https://wgss.wustl.edu/people/amy-eisen-cislo/>)

Senior Lecturer  
PhD, Washington University  
(Women, Gender, and Sexuality Studies; German)

**Mary Ann Dzuback** (<https://wgss.wustl.edu/people/mary-ann-dzuback/>)

Associate Professor of Women, Gender, and Sexuality Studies,  
Education, and History (courtesy)  
PhD, Columbia University  
(Women, Gender, and Sexuality Studies; Education; History)

**René Esparza** (<https://wgss.wustl.edu/people/rene-esparza/>)

Assistant Professor  
PhD, University of Minnesota, Twin Cities  
(Women, Gender, and Sexuality Studies; American Studies)

**Andrea Friedman** (<https://wgss.wustl.edu/people/andrea-friedman/>)

Professor  
PhD, University of Wisconsin-Madison  
(Women, Gender, and Sexuality Studies; History)

## Professor Emerita

**Linda Nicholson** (<https://wgss.wustl.edu/people/linda-nicholson/>)

Susan E. and William P. Stiritz Distinguished Professor of  
Women's Studies  
PhD, Brandeis University  
(Women, Gender, and Sexuality Studies; History)

## Additional Program Faculty

**Jami Ake** (<https://wgss.wustl.edu/people/jami-ake/>)

Assistant Dean and Academic Coordinator, College of Arts &  
Sciences  
PhD, Indiana University Bloomington  
(English; Women, Gender, and Sexuality Studies)

**Andrea Nichols**

Lecturer  
PhD, University of Missouri-St. Louis  
(Women, Gender, and Sexuality Studies; Criminology)

**Trevor Sangrey** (<https://wgss.wustl.edu/people/trevor-sangrey/>)

Lecturer  
PhD, University of California, Santa Cruz  
(Women, Gender, and Sexuality Studies; History of  
Consciousness)

**Elisabeth Windle** (<https://wgss.wustl.edu/people/elisabeth-windle/>)

Lecturer  
PhD, Washington University in St. Louis  
(Women, Gender, and Sexuality Studies; English)

## Affiliate Faculty

**Jean Allman** (<https://history.wustl.edu/people/jean-allman/>)

J.H. Hexter Professor in the Humanities  
PhD, Northwestern University  
(History)

**Susan Frelich Appleton** (<https://law.wustl.edu/faculty-staff-directory/profile/susan-frelich-appleton/>)

Lemma Barkeloo and Phoebe Couzins Professor of Law  
JD, University of California, Berkeley  
(Law)

**Nancy Berg**

Professor  
PhD, University of Pennsylvania  
(Modern Hebrew Languages and Literatures)

**Elizabeth Childs** (<http://arthistory.artsci.wustl.edu/people/elizabeth-c-childs/>)

Etta and Mark Steinberg Professor of Art History  
PhD, Columbia University  
(Art History)

**Caitlyn Collins** (<http://sociology.wustl.edu/people/caitlyn-collins/>)

Assistant Professor  
PhD, University of Texas at Austin  
(Sociology)

**Rebecca Copeland** (<http://ealc.wustl.edu/people/rebecca-copeland/>)

Professor  
PhD, Columbia University  
(Japanese)

**Marion Crain** ([http://law.wustl.edu/faculty\\_profiles/profiles.aspx?id=6613](http://law.wustl.edu/faculty_profiles/profiles.aspx?id=6613))

Wiley Rutledge Professor of Law  
JD, University of California, Los Angeles  
(Law)

**Adrienne Davis** ([http://law.wustl.edu/faculty\\_profiles/profiles.aspx?id=5768](http://law.wustl.edu/faculty_profiles/profiles.aspx?id=5768))

William M. Van Cleve Professor of Law  
JD, Yale University  
(Law)

**Tonya Edmond** (<http://gwbweb.wustl.edu/FACULTY/FULLTIME/Pages/TonyaEdmond.aspx>)

Associate Professor  
PhD, University of Texas at Austin  
(Social Work)

**Vanessa Fabbre** (<http://brownschool.wustl.edu/Faculty/FullTime/Pages/Vanessa-Fabbre.aspx>)

Assistant Professor  
PhD, University of Chicago  
(Social Work)

**R. Marie Griffith** (<https://rap.wustl.edu/people/r-marie-griffith/>)

John C. Danforth Distinguished Professor  
PhD, Harvard University  
(Director, John C. Danforth Center on Religion and Politics)

**Christine Johnson** (<https://history.wustl.edu/people/christine-johnson/>)

Associate Professor  
PhD, Johns Hopkins University  
(History)

**Elizabeth Katz** (<https://law.wustl.edu/faculty-staff-directory/profile/elizabeth-d-katz/>)

Associate Professor  
JD, University of Virginia  
(Law)

**Stephanie Kirk** (<https://rll.wustl.edu/people/stephanie-kirk/>)

Associate Professor  
PhD, New York University  
(Romance Languages and Literatures)

**Rebecca Lester** (<https://anthropology.wustl.edu/people/rebecca-lester/>)

Associate Professor  
PhD, University of California, San Diego  
(Anthropology)

**Erin McGlothlin** (<https://german.wustl.edu/people/erin-mcglathlin/>)

Associate Professor  
PhD, University of Virginia  
(Germanic Languages and Literatures)

**Rebecca Messbarger** (<https://rll.wustl.edu/people/rebecca-messbarger/>)

Professor  
PhD, University of Chicago  
(Romance Languages and Literatures)

**Melanie Micir** (<http://english.artsci.wustl.edu/people/melanie-micir/>)

Associate Professor  
PhD, University of Pennsylvania  
(English)

**Angela Miller** (<https://artsci.wustl.edu/faculty-staff/angela-miller/>)

Professor  
PhD, Yale University  
(Art History)

**Patricia Olynyk** ([http://samfoxschool.wustl.edu/portfolios/faculty/patricia\\_olynyk/](http://samfoxschool.wustl.edu/portfolios/faculty/patricia_olynyk/))

Florence and Frank Bush Professor of Design and Visual Arts  
MFA, California College of the Arts  
(Art)

**Shanti Parikh** (<https://anthropology.wustl.edu/people/shanti-parikh/>)

Associate Professor  
PhD, Yale University  
(Anthropology; African and African-American Studies)

**Anca Parvulescu** (<https://english.wustl.edu/people/anca-parvulescu/>)

Professor  
PhD, University of Minnesota  
(English)

**Vivian Pollak** (<https://english.wustl.edu/people/vivian-pollak/>)

Professor  
PhD, Brandeis University  
(English)

**Nancy Reynolds** (<https://history.wustl.edu/people/nancy-reynolds/>)

Associate Professor  
PhD, Stanford University  
(History)

**Jessica Rosenfeld** (<https://english.wustl.edu/people/jessica-rosenfeld/>)

Associate Professor  
PhD, University of Pennsylvania  
(English)

**Carolyn Sargent** (<https://anthropology.wustl.edu/people/carolyn-sargent/>)

Professor  
PhD, Michigan State University  
(Anthropology)

**Julie Singer**

Associate Professor  
PhD, Duke University  
(Romance Languages and Literatures)

**Peggie Smith** ([http://law.wustl.edu/faculty\\_profiles/profiles.aspx?id=7971](http://law.wustl.edu/faculty_profiles/profiles.aspx?id=7971))

Charles F. Nagel Professor of Employment and Labor Law  
JD, Yale University  
(Law)

**Gaylyn Studlar** (<http://fms.artsci.wustl.edu/people/gaylyn-studlar/>)

David May Distinguished University Professor in the Humanities  
PhD, University of Southern California  
(Film and Media Studies)

**Lynne Tatlock** (<http://complit.artsci.wustl.edu/people/lynne-tatlock/>)

Hortense and Tobias Lewin Distinguished Professor in the Humanities  
PhD, Indiana University  
(Germanic Languages and Literatures)

**Karen Tokarz** ([http://law.wustl.edu/faculty\\_profiles/profiles.aspx?id=448](http://law.wustl.edu/faculty_profiles/profiles.aspx?id=448))

Charles Nagel Professor of Public Interest and Public Service  
Law  
JD, Saint Louis University  
LLM, University of California, Berkeley  
(Law)

**Corinna Treitel** (<https://history.wustl.edu/people/corinna-treitel/>)

Associate Professor  
PhD, Harvard University  
(History)

**Akiko Tsuchiya** (<https://rll.wustl.edu/people/akiko-tsuchiya/>)

Professor  
PhD, Cornell University  
(Romance Languages and Literatures)

**Anika Walke** (<https://history.wustl.edu/people/anika-walke/>)

Associate Professor  
PhD, University of California  
(History)

**Gerhild Scholz Williams** (<https://german.wustl.edu/people/gerhild-williams/>)

Barbara Schaps Thomas and David M. Thomas Professor in the Humanities  
PhD, University of Washington  
(Germanic Languages and Literatures)

**Adia Harvey Wingfield** (<https://sociology.wustl.edu/people/adia-harvey-wingfield/>)

Professor  
PhD, Johns Hopkins University  
(Sociology)

**Colette Winn** (<https://rll.wustl.edu/people/colette-winn/>)

Professor  
PhD, University of Missouri-Columbia  
(Romance Languages and Literatures)

## Degree Requirements

### Master of Arts in Women, Gender, and Sexuality Studies

The Master of Arts in WGSS curriculum includes courses that are home-based in WGSS as well as courses that are cross-listed with WGSS and taught by feminist and gender scholars on the university faculty. The required courses are listed below and are designed to meet the 32-credit requirement for the Master of Arts in Arts & Sciences. Courses in the advanced seminar categories should be chosen in consultation with the WGSS adviser.

Students opting to write a master's thesis should complete 30 units of course work and the thesis. Students opting not to write a thesis should complete 32 units of course work. During their final semester of courses, students take a comprehensive written examination that will test their competence in the field of study. The examining committee will consist of the director of graduate studies, the student's adviser, and one other faculty member who is either core or affiliated with WGSS.

#### Advanced Theory and Research (9 credits):

- WGSS 501 Advanced Feminist Theory
- WGSS 417W Feminist Research Methodologies
- WGSS 429 Feminist Political Theory
- WGSS 419 Feminist Literary and Cultural Theory

#### Advanced Seminars in Race/Ethnicity (3 credits):

- WGSS 421 From Mammy to the Welfare Queen: African-American Women Theorize Identity
- WGSS 4XX Gender, Ethnicity, and Queer of Color Critique (course to be developed)

#### Advanced Seminars in Gender/Sexuality (3 credits):

- WGSS 406 Queering Theory: Collaborating, Solidarity, and Working Together
- WGSS 419 Feminist Literary and Cultural Theory
- WGSS 4102 Everyday Unruliness: Feminist and Queer Resistance

#### Advanced Seminars in Transnational Feminist and Gender Analysis (6 credits):

- WGSS 418C Sexuality and Gender in East Asian Religions
- WGSS 437 Transnational Feminisms
- WGSS 49MB Advanced Seminar: Women and Gender in Modern Caribbean History
- WGSS 429 Feminist Political Theory
- WGSS 457 Gender and Modernity in Latin America

**Electives in the Student's Area(s) of Interest (9-12 credits):**

*Any additional advanced seminars from the above categories, or History and Theory:*

- WGSS 475 Reformers and Radicals: Feminist Thinking Through History

*Literature*

- WGSS 4231 Topics in American Literature I
- WGSS 455 Topics in Korean Literature and Culture: Gender in Korean Literature and Film
- WGSS 4611 The Shaping of Modern Literature: Queer Historical Fiction
- WGSS 482 Reading Seminar: Gender and Chinese Literature: Writing Women of Imperial China

*Gender Violence*

- WGSS 427 Technology and Feminist Practice: Gender Violence Prevention Tools

**Thesis Procedures**

Students who choose to write a thesis will determine a subfield of focus during the first year of study. During the second year, in collaboration with their advisers, students will develop a thesis project or a practicum with a substantial writing component.

## Joint Juris Doctor/Master of Arts in Women, Gender, and Sexuality Studies

Students entering this four-year program spend their first year taking the required the 1L courses in the Law School. As a result, a law student might decide to apply for the joint-degree program after entering law school.

Students in the program fulfill the usual JD requirements, including one ethics course, one upper-class writing course (seminar), 6 units of experiential credits in designated courses, and 67 units of law classroom credits. Because the upper-class JD curriculum may vary from year to year, students should choose their electives in consultation with their Law School advisers. Students in the joint Juris Doctor/Master of Arts in WGSS program may take courses from Arts & Sciences during their second through fourth years.

## Master of Arts Program Requirements

The required WGSS courses are designed to meet the credit requirements for the Master of Arts in Arts & Sciences. Courses in the advanced seminar categories should be chosen in consultation with the WGSS adviser. The proposed curriculum includes courses that are home-based in WGSS, courses that are cross-listed with WGSS and taught by feminist and gender scholars on the faculty, and courses that are offered by the Law School.

The Master of Arts in WGSS requires 32 credit units, including at least 21 units from specific areas, with the remainder satisfied through elective courses in the student's area of interest; a 2-credit master's thesis is optional. For the Juris Doctoris/Master of Arts in WGSS, particular courses in the upper-class Juris Doctoris curriculum offer opportunities for such electives, but these courses *must* be taken for a grade; courses offered pass/fail or for credit only will not count toward the 32 credits required for the Master of Arts in WGSS. (**Note:** Should students decide to start a PhD program, they will need 36 credits at the master's level.)

Students opting to write a master's thesis should complete 30 units of course work and the thesis. Students opting not to write a thesis should complete 32 units of course work.

During their final semester of courses, students take a comprehensive written examination that will test their competence in the field of study. The examining committee will consist of the director of graduate studies, the student's adviser, and one other faculty member who is either core or affiliated with WGSS.

**Advanced Theory and Research (9 units):**

- WGSS 501 Advanced Feminist Theory (3 units)
- WGSS 417W Feminist Research Methodologies (3 units)
- WGSS 502 Critical Sexualities (3 units)

**Advanced Seminars in Race/Ethnicity (3 units):**

- WGSS 421 From Mammy to the Welfare Queen: African-American Women Theorize Identity (3 units)
- L77 WGSS 4XX Gender, Ethnicity, and Queer of Color Critique (course to be developed)

**Advanced Seminars in Gender/Sexuality (3 units):**

- WGSS 406 Queering Theory: Collaborating, Solidarity, and Working Together
- WGSS 419 Feminist Literary and Cultural Theory
- WGSS 4102 Everyday Unruliness: Feminist and Queer Resistance

**Advanced Seminars in Transnational Feminist and Gender Analysis (6 units):**

- WGSS 418 Sexuality and Gender in East Asian Religions (3 units)
- WGSS 437 Transnational Feminisms (3 units)
- WGSS 439 The Arab & Muslim Americas: Feminist Perspectives (3 units)
- WGSS 49MB Advanced Seminar: Women and Gender in Modern Caribbean History (3 units)
- WGSS 429 Feminist Political Theory (3 units)
- WGSS 457 Gender and Modernity in Latin America (3 units)

**Electives in the Student's Area(s) of Interest (9-12 units):**

These electives can be chosen from any of the advanced seminars from the above categories or from the following Law School courses, which *must* be taken for a grade to count toward the 32 credits required for the Master of Arts; students should discuss this with their WGSS adviser:

- LAW 590D Children's Rights Clinic (up to 8 units)
- LAW 508C Domestic Violence & the Law (2 units)
- LAW 590D Employment Discrimination (3 units)
- LAW 548 Family Law (4 units)
- LAW 8295 Feminist Theories/Feminist Judgments (3 units; seminar)
- LAW 8275 Implicit Bias, Law, & the Legal Profession (3 units; seminar)
- LAW 609S-01 The Law of the Fourteenth Amendment (2 units)
- LAW 784 Regulating Sex: Historical & Cultural Encounters (2 units)
- LAW 602D Sexuality & the Law: Theory & Practice (3 units)
- LAW 802B & LAW 802C Supervised Instruction: Law, Gender, & Justice (3 units, pass/fail, by selection only; can only count toward the JD portion of the program)
- Semester-in-practice externship (up to 12 units; specific placements only)

The following WGSS courses can also be taken as electives:

*History and Theory*

- WGSS 475 Reformers and Radicals: Feminist Thinking Through History (3 units)
- WGSS 4675 Beyond the Harem: Women, Gender, and Revolution in the Modern Middle East (3 units)

*Literature*

- WGSS 4231 Topics in American Literature I (3 units)
- WGSS 455 Topics in Korean Literature and Culture: Gender in Korean Literature and Film (3 units)
- WGSS 4611 The Shaping of Modern Literature: Queer Historical Fiction
- WGSS 482 Reading Seminar: Gender and Chinese Literature: Writing Women of Imperial China

*Gender Violence*

- WGSS 427 Technology and Feminist Practice: Gender Violence Prevention Tools (3 units)

## Thesis Procedures

Students who choose to write a thesis will determine a subfield of focus during the first year of study. During the second year, in collaboration with their advisers, students will develop a thesis project or a practicum with a substantial writing component. Students who do not complete the Master of Arts portion of the joint-degree program are not eligible for the graduate certificate in WGSS. Students must earn grades of B or higher in the Graduate School courses for those courses to count toward the Master of Arts in WGSS.

## Graduate Certificate in Women, Gender, and Sexuality Studies

Graduate students interested in the graduate certificate in WGSS should first apply for admission to the Washington University department in which they wish to obtain an advanced degree. After being admitted, each student should notify their department adviser and the WGSS program director of their plans to obtain the WGSS certificate. In addition, each student should submit an "Application for Admission to Certificate Program" form to the Graduate School of Arts & Sciences office, with a copy also given to the WGSS office. The earlier that the WGSS department knows who these students are, the earlier these students can be included in mailings about program activities, lectures, conferences and other events. Certificate application forms are available in the Graduate School office.

The graduate certificate in WGSS requires the completion of five courses, at least two of which must be drawn from 400-level or above home-based WGSS courses. The other three required courses must be drawn from 400-level or above home-based or cross-listed WGSS courses or from other program-approved, gender-based courses; students will consult with the program director for approval. Since the certificate requires three courses beyond those required for a student's home degree, participation in the certificate program may require an extra semester of graduate classes. Those students who are not interested in the certificate but who want to concentrate on gender within their disciplines to enhance their credentials and enrich their training may do so by pursuing a graduate minor in accordance with the policies of their individual departments. Other students may participate in WGSS courses without commitment to a concentration.

## Writing

The Writing program offers a **Master of Fine Arts (MFA) in Writing** in three genres: creative nonfiction, fiction and poetry. Applicants must apply to each genre separately and will be enrolled in only one. However, through themed craft courses, MFA students may take courses with faculty and students in other genres. The MFA in Writing is a two-year program.

The Writing program, which is ranked ninth in the country by *Poets & Writers*, is highly selective, enrolling 10 to 15 students each year. There is a low faculty-to-student ratio, with writing courses generally capped at 12 students. MFA students are generously funded, with all incoming students receiving full tuition scholarships plus university fellowships. Our faculty includes Guggenheim Fellows, National Book Award finalists, and winners of the National Book Critics Circle Award. Graduates of our program have won the PEN/Hemingway Award and the Drue Heinz Literature Prize, among other honors.

Each year, our reading series brings a diverse group of poets, fiction writers and nonfiction writers to the department. In addition, the Hurst Professor program brings in six distinguished visitors each year to present their newest work, lecture on the craft of writing, and work one-on-one with our MFA students. Edward P. Jones, Frank Bidart, Joy Williams, Jorie Graham, Aleksandar Hemon, Lucie Brock Broido, George Saunders, Louise Glück, Kelly Link, C.D. Wright, Richard Powers, Claudia Rankine, Deborah Eisenberg, Paul Muldoon, Charles Baxter, Timothy Donnelly and Lydia Davis are just some of our recent visiting Hurst Professors.

Contact: Shannon Rabong  
Phone: 314-935-8389  
Email: [scrabong@wustl.edu](mailto:scrabong@wustl.edu)  
Website: [http://english.artsci.wustl.edu/graduate/writing\\_program](http://english.artsci.wustl.edu/graduate/writing_program)

## Faculty

### Professors

**Mary Jo Bang** (<https://english.wustl.edu/people/mary-jo-bang/>)  
MFA, Columbia University

**Carl Phillips** (<https://english.wustl.edu/people/carl-phillips/>)  
MA, Boston University

### Associate Professors

**Danielle Dutton** (<https://english.wustl.edu/people/danielle-dutton/>)  
PhD, University of Denver

**Edward McPherson** (<https://english.wustl.edu/people/edward-mcpherson/>)  
MFA, University of Minnesota–Twin Cities

## Writers-in-Residence

**Kathryn Davis** (<https://english.wustl.edu/people/kathryn-davis/>)  
BA, Goddard University

**Kathleen Finneran** (<https://english.wustl.edu/people/kathleen-finneran/>)  
BA, Washington University

**Marshall Klimasewski** (<https://english.wustl.edu/people/marshall-klimasewski/>)  
MFA, Bowling Green State University

## Director of Creative Writing Program

**David Schuman** (<https://english.wustl.edu/people/david-schuman/>)  
MFA, Washington University

## Degree Requirements

### Master of Fine Arts in Writing

The Writing program leads to the Master of Fine Arts (MFA) in Writing. This is a two-year program that requires satisfactory completion of 42 credit units, a thesis, and an oral examination dealing principally with the thesis.

### Courses

Of the 42 credit units required, 24 consist of the graduate nonfiction, fiction or poetry workshop taken every semester. The remainder are primarily literature and craft courses from the English department. However, in consultation with the director of the program, graduate-level courses from any department that will enrich the student's writing are acceptable, as long as the student has the appropriate preparation and the permission of the instructor.

During their first year, students enroll for 24 units: the graduate workshop in their genre (6 units) plus two additional 3-unit courses each semester. During the second year, while participating in the mentored teaching experience, students typically take a total of 18 units: the workshop each semester (12 units), thesis hours (3 units), and an additional course.

### Thesis

The required work for the MFA culminates in a thesis, which may take different forms but is usually a volume (or most of a volume) of poems, stories or essays; a novel (or most of a novel); or a memoir or other long-form creative nonfiction work (or most of one).

### Oral Examination

Near the end of the second year, after the thesis has been submitted in its final form, the department will schedule an oral examination that deals principally with the thesis.

## University College

### Graduate Study

University College administers the Doctor of Liberal Arts, Master of Liberal Arts, Master of Arts and Master of Science in coordination with the Graduate School. University College administers the Master of Science in Clinical Research Management in coordination with Washington University School of Medicine. University College also offers a range of graduate-level certificate programs (<http://ucollege.wustl.edu/programs/17/>).

To earn the Doctor of Liberal Arts degree (<http://ucollege.wustl.edu/programs/graduate/doctor-liberal-arts/>) at Washington University, a student must complete 45 credit units after earning a relevant master's degree, pass written and oral comprehensive examinations, and write and defend a thesis.

Master's degree programs (<https://ucollege.wustl.edu/programs/10/>) in University College consist of 30 to 36 units of graduate-level course work, including, in some cases, a 6-unit master's thesis or a 3-unit directed research project.

Normally, up to 6 units of related graduate-level study with a grade of B or higher may be transferred to a graduate program. All other course work must be taken at Washington University. Only courses taken for a letter grade may be applied to a graduate program of study. Courses taken as pass/fail or audit will not count toward a graduate program of study.\* Grades below C- will not count toward a graduate degree program of study. Students must maintain a cumulative grade-point average of 3.0 to be eligible to receive a graduate degree.

Please visit the University College website (<http://ucollege.wustl.edu>) or call 314-935-6700 for more detailed information, requirements and policies concerning specific graduate degree programs.

\* University College students may apply a maximum of 6 units of pass/fail credit from graduate-level courses in the Olin Business School to a master's degree program in University College. The course work must be authorized by both University College and the Graduate School, and the student must have received a grade of Pass or High Pass in the Olin School course. Courses with grades of Low Pass are not eligible. This policy applies only to courses completed on a pass/fail basis in the Olin Business School prior to a student's admission to a University College graduate program of study administered by University College and conferred by the Graduate School. Once admitted to a University College program of study, students who are authorized to take courses in the Olin School and apply them toward their program of study are required to convert pass/fail grades to letter grades at the time of registration.

## Admission

Admission to the Doctor of Liberal Arts program is extremely competitive. Candidates must already hold a master's degree in a relevant subject from an accredited institution of higher learning. The application deadline is April 1 for the fall semester and November 1 for the spring semester. Please visit the University College website for more detailed admissions requirements and information about the Doctor of Liberal Arts (<http://ucollege.wustl.edu/programs/graduate/doctor-liberal-arts/>).

Admission to master's degree programs is competitive and open on a selective basis to qualified individuals who have earned a baccalaureate degree. University College and the Graduate School review completed applications and make admissions decisions on a rolling basis for master's degree programs. The process typically takes four to six weeks. Master's degree applicants should submit materials according to the following schedule to ensure a timely decision: December 15 for spring, April 15 for summer and July 15 for fall. Please visit the University College website (<http://ucollege.wustl.edu>) for additional program-specific admission requirements.

## Graduate Degrees in University College

- Doctor of Liberal Arts (DLA) (<http://ucollege.wustl.edu/programs/graduate/doctor-liberal-arts/>)
- Master of Arts (AM) in American Culture Studies (<https://ucollege.wustl.edu/programs/graduate/masters-american-culture-studies/>)
- Master of Arts (AM) in Biology (<https://ucollege.wustl.edu/programs/graduate/masters-biology/>)
- Master of Arts in Education (MAEd) (<https://ucollege.wustl.edu/areas/education/masters/>)
- Master of Arts (AM) in Human Resources Management (<https://ucollege.wustl.edu/programs/graduate/masters-human-resources-management/>)
- Master of Arts (AM) in International Affairs (<https://ucollege.wustl.edu/programs/graduate/masters-international-affairs/>)
- Master of Arts (AM) in Nonprofit Management (<https://ucollege.wustl.edu/programs/graduate/masters-nonprofit-management/>)
- Master of Arts (AM) in Statistics (<https://ucollege.wustl.edu/programs/graduate/masters-statistics/>)
- Master of Arts (AM) in Teaching and Learning (<https://ucollege.wustl.edu/programs/graduate/masters-teaching-learning/>)
- Master of Liberal Arts (MLA) (<https://ucollege.wustl.edu/programs/graduate/masters-liberal-arts/>)

- Master of Science (MS) in Biology for Science Teachers (<https://ucollege.wustl.edu/node/1278/>)
- Master of Science (MS) in Clinical Research Management (<https://ucollege.wustl.edu/programs/graduate/masters-clinical-research-management/>)

*The AM, MAEd, and MS in Biology degrees are conferred by the Graduate School. The MS in Clinical Research Management is conferred by University College.*

Website: <http://ucollege.wustl.edu>

## UCollege - American Culture Studies

### Master of Arts in American Culture Studies

The **Master of Arts in American Culture Studies** addresses the intellectual and moral questions of American identity and belonging that no single disciplinary perspective can comprehensively and satisfyingly resolve. What does it mean to live and work in an American culture devoted to individual success and autonomy and at the same time be a citizen of a nation devoted to collective needs and well-being?

The **Master of Arts in American Culture Studies** provides the instruction, both in specific disciplines and in cross-disciplinary conversations, to help students answer important questions about American society. It also introduces some of the social, political and cultural issues that have shaped American culture and identity. Most fundamentally, it provides a critical skill set that fosters the analysis of an array of cultural objects — a place, an event, a work of art, a political institution — from a rich and diverse foundation of knowledge and perspectives.

Students' studies culminate in a self-directed project that allows them to explore an area of personal interest while participating in a multidisciplinary scholarly community. Part of the excitement of this kind of learning is the opportunity to engage in creative, rigorous exchange with faculty in the humanities and social sciences at Washington University in St. Louis as well as with leading practitioners in the St. Louis professional and policy world.

Studies may span American literature, history, politics, religion, philosophy, art, music and film.

Contact: Karen Skinner  
Phone: 314-935-6994  
Email: [k.skinner@wustl.edu](mailto:k.skinner@wustl.edu)  
Website: <http://ucollege.wustl.edu/programs/graduate/masters-american-culture-studies>

## UCollege - Biology

### Master of Arts in Biology

The **Master of Arts in Biology** program helps students to update and deepen their knowledge of the biomedical sciences, prepare for employment in related fields, and advance their professional standing while obtaining a graduate science degree on a part-time basis through evening, weekend and online courses.

The program is designed to be adaptable to each individual's unique background and goals, and it provides a flexible curriculum and close individual advising for each student. Students include science and health professionals, teachers, technicians, and individuals in biology-related businesses.

Students in this program have the option of choosing a concentration in neurobiology for deeper, more focused study.

### Master of Science in Biology for Science Teachers

The **Master of Science (MS) in Biology** is designed to fit the schedules of working teachers. It consists of two three-week summer institutes in residence at Washington University. The remaining course work, which is performed during the academic years, is completed online. Summer housing is available for out-of-town students and is included in the cost of the program.

Contact: Ian Duncan  
Phone: 314-935-6719  
Email: [duncan@wustl.edu](mailto:duncan@wustl.edu)  
Website: <http://ucollege.wustl.edu/programs/graduate/masters-biology>

## UCollege - Education

### Master of Arts in Education—Instructional Process

Washington University's Department of Education offers a part-time **Master of Arts** degree focused on an analysis of practice for practicing educators in a variety of settings. This analysis of practice allows educators to consider multiple and enhanced approaches for data collection, analysis, and reflection on educational issues involving educational assessment data, video microanalysis, learning sciences research and educational foundation concepts. We offer three strands of study — Professional Development, Elementary/Middle School Science Education, and Innovative Teacher Certification — that work to enhance the educator's professional development in a particular area of focus.



## Post-Baccalaureate Teacher Certification

The **Post-Baccalaureate Teacher Certification** program provides students who have completed a bachelor's degree with the course work necessary to obtain a Missouri teaching certificate. All course work is available through University College during afternoon and evening hours with the exception of student teaching, which is available during the fall (elementary) or spring (middle school, secondary and K-12) semester. Required course work is taken for undergraduate credit. Certification through this program is available in the following teaching areas:

- Secondary Education (grades 9-12): biology, chemistry, earth science, English, mathematics, physics or social science
- Middle School (grades 5-9): language arts, mathematics, science or social science
- K-12: art, dance or world languages (Chinese, French, German, Japanese, Latin, Russian, Spanish)
- Elementary Education (grades 1-6)

Contact: Michele Augustin  
Phone: 314-935-3571  
Email: [maugusti@wustl.edu](mailto:maugusti@wustl.edu)  
Website: <http://ucollege.wustl.edu/areas/education/masters>

## UCollege - Human Resources Management

### Master of Arts in Human Resources Management

Human resources managers are an integral part of the leadership team charged with directing complex organizations and a diverse workforce. Managing people and organizations requires both functional skills in human resources as well as expertise in strategic planning and organizational development.

The **Master of Arts in Human Resources Management** prepares individuals in a variety of employment settings to join other organizational leaders at the table of decision makers.

The Master of Arts in Human Resources Management provides the student with skills and information in key operational areas such as human relations and communications, compensation and benefits, training and development, employee and labor relations, and staffing and retention. In addition, the program teaches professionals how to contribute to organizational development, change, risk management and strategic planning.

Contact: Jennifer Fickeler  
Email: [jfickeler@wustl.edu](mailto:jfickeler@wustl.edu)  
Website: <http://ucollege.wustl.edu/programs/graduate/masters-human-resources-management>

## UCollege - International Affairs

### Master of Arts in International Affairs

Breathtaking changes in political, economic and social relations have taken place over the past several centuries. Living and working in a rapidly changing global environment presents great opportunities to advance the human condition, promote growth and development, create political liberties, recast bargains between governments and their societies, transform social welfare, and advance the boundaries of knowledge and scientific exploration.

Yet the same context presents great risks as people fear loss of identity, worry about economic subordination and loss to those beyond their borders, encounter environmental degradation, and confront potential decline in personal and social autonomy. Our heightened economic, political, social, cultural and environmental interdependence generates serious challenges in areas such as social justice, health, security, development, human rights, social welfare, inequality, diversity and technology. These challenges create the possibility for conflict but also for cooperation and compromise.

The **Master of Arts in International Affairs** offers an interdisciplinary approach to understanding global issues. The program draws on teaching and expertise from Washington University faculty and experienced practitioners in the St. Louis region, and it provides knowledge and skills for understanding and working with some of the most difficult international and cross-cultural problems faced by states, societies and communities. Students have the opportunity to tailor their studies to explore topics such as global politics, global economics, development, international security and conflict, international business, human rights, the role of gender, the environment and sustainability, and issues of regional importance.

Whether students are studying full-time or part-time, a range of on-campus and online courses makes it possible for them to shape their degree according to their interests and schedules. Please note, though, that this program is not fully online; some courses must be taken on the Washington University campus.

Contact: Jeremy Caddel  
Email: [jcaddel@wustl.edu](mailto:jcaddel@wustl.edu)  
Website: <http://ucollege.wustl.edu/programs/graduate/masters-international-affairs>

## UCollege - Liberal Arts

### Master of Liberal Arts (MLA)

The **Master of Liberal Arts (MLA)** program fosters intellectual breadth through courses that address a broad range of cultural issues from different academic perspectives. Students may explore questions of identity through art, literature and religion. They may analyze the politics of race in fiction, historical documents, the visual arts and music. They may debate ethical choices presented by fiction writers, jurists, philosophers and scientists from antiquity through the present. MLA seminars examine literary, artistic and cinematic masterpieces; historic moments of discovery and change; traditions of thought; cultural differences; and civic responsibilities.

MLA students sharpen their thinking about contemporary values and choices through courses that ask them to reflect on the individual's relation to society, technology and the spread of ideas, challenges to freedom, and inspiration and creativity.

Students pursue course work and independent research with Washington University scholars from a number of academic disciplines, including architecture, art, film, history, literature, music, philosophy, religion and science.

The MLA program emphasizes critical thinking and inquiry, close reading, intensive writing and problem solving, all of which are hallmarks of a liberal arts education and essential skills for a range of professional contexts.

### Doctor of Liberal Arts (DLA)

The **Doctor of Liberal Arts (DLA)** program is designed for the experienced adult learner who wishes to pursue rigorous interdisciplinary study along with independent scholarly reading and research. The degree is designed to cultivate interdisciplinary skills, intellectual habits, analytical and critical reasoning, effective writing, and broad-based decision making. This degree neither constitutes a professional credential nor provides training for an academic career.

Contact: Stephanie Kirk  
Phone: 314-935-5175  
Email: skirk@wustl.edu  
Website: <http://ucollege.wustl.edu/programs/graduate>

## UCollege - Nonprofit Management

### Master of Arts in Nonprofit Management

Nonprofit organizations confront the challenges and opportunities that mission-driven organizations face today in areas such as succession planning, volunteerism, resource development and competitive funding. The **Master of Arts in Nonprofit Management** addresses these areas by drawing on the expertise of experienced practitioners in the St. Louis area.

The graduate program in nonprofit management provides a range of courses that address the major responsibilities and challenges of nonprofit and human resources management. It prepares students to work effectively in the field, and it enhances the management skills of those seeking careers in related fields. Administered jointly by the Graduate School and University College, the program is designed for working adults attending school on a part-time basis.

This program provides students with the skills and resources needed to lead mission-driven organizations as productive examples of social entrepreneurship. Studies are grounded in the historical context of nonprofit management and philanthropy, and students acquire skills in all operational areas of nonprofit management, including financial management, law, grant writing, volunteer management, resource development, research and statistical analysis, and marketing communications. At the strategic level, the program teaches leadership, organization development, strategic planning, marketing communications, and the skills of social entrepreneurship.

Contact: Amy Buehler  
Email: [abuehler@wustl.edu](mailto:abuehler@wustl.edu)  
Website: <http://ucollege.wustl.edu/programs/graduate/masters-nonprofit-management>

## UCollege - Statistics

### Master of Arts in Statistics

The **Master of Arts in Statistics** prepares students to perform in an information-rich, data-driven workforce that requires both general and specialized skills in statistical analysis. The 36-unit program — designed primarily for part-time study — covers essential elements of statistical studies, with courses in probability, statistical computation and model building, experimental design, survival analysis, Bayesian statistics and stochastic processes. These courses and the required

practicum provide a foundation for further doctoral-level study in mathematics and statistics or in other academic disciplines such as anthropology, biology, economics, political science and psychology.

In addition to providing a solid theoretical foundation, the program also offers applied value by providing tools, strategies and technical skills in areas such as predictive analytics and big data to help professionals in many fields analyze large volumes of data, make reliable and productive business decisions, and use technology efficiently. The program offers flexibility and a wide range of elective and applied courses that emphasize statistical analysis in mathematics, computer science, engineering, clinical investigation, biostatistics, economics and business. Students may choose from a broad-based pool of elective courses across disciplines, or they may organize elective course work and design the required practicum in one of the optional tracks that correspond to strong industry demand for statisticians: Biology and Health, Business and Finance, or Engineering and Materials.

Contact: Lisa Kuehne  
Phone: 314-935-4226  
Email: lmkuehne@wustl.edu  
Website: <http://ucollege.wustl.edu/programs/graduate/masters-statistics>

## UCollege - Teaching and Learning

### Master of Arts in Teaching and Learning

The **Master of Arts in Teaching and Learning (MATL)** is designed for adult career-changers who are committed to teaching in at-risk schools. University College, the Institute for School Partnership, and the St. Louis Teacher Residency (STLTR) program collaborate to train and support aspiring teachers who, in turn, will accelerate student achievement.

The first year of the program is facilitated by STLTR and begins with a one-year residency. Student residents work with an experienced mentor teacher in a high-needs classroom, developing the skills needed to be a leader in the classroom. Residents also take classes focused on the core competencies needed to have a successful career in teaching. By joining STLTR, students make a commitment to serve the learners and families in St. Louis-area public schools.

At the end of the first-year residency, students earn their teacher certification. During the second year, residents teach in their partner school districts while completing their master's degrees at University College. Master's pedagogical course work continues to support and inform the students' classroom teaching, and it is complemented by subject-

specific courses. After completing the master's degree, participants commit to teaching for two additional years in their home districts, and they receive continued support from STLTR staff during their early years of teaching.

Contact: Dr. Patricia Matthews  
Phone: 314-935-6754  
Email: patmatthews@wustl.edu  
Website: <https://ucollege.wustl.edu/programs/graduate/masters-teaching-learning>

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# Admissions

## Eligibility

Washington University encourages and gives full consideration to all applicants for admission and financial support without regard to race, color, age, religion, sex, sexual orientation, gender identity or expression, national origin, veteran status, disability or genetic information.

Evidence considered by each admissions committee includes not only the quality of previous course study but also its relevance to the applicant's prospective program. Research experience in the discipline is always viewed favorably.

The Graduate School is strongly interested in recruiting, enrolling, retaining and graduating students from diverse backgrounds. Applications for admission by students from diverse backgrounds to any of the Graduate School's degree programs are encouraged and welcomed. To the greatest extent possible, students with disabilities are integrated into the student population as equal members.

## Application Process

Degree programs set their own application deadlines, which must occur no later than January 15. Many deadlines are much earlier; applicants should check with their prospective programs. It is generally advantageous to the applicant to complete the application well in advance of the deadline.

Admissions and financial aid awards are for a specific academic year. Admitted students can request a deferral of admission for up to one year, but such special requests require approval of the admitting program and of the Graduate School. Applicants to whom admission is not offered may reapply after gaining additional evidence of qualification.

Degree programs in Arts & Sciences rarely admit applicants for the spring semester. Students interested in beginning graduate study in the spring should consult their prospective program's faculty and staff.

The application (<http://graduateschool.wustl.edu/apply/>) is available online through the Graduate School website.

Applications are ready for final consideration after the following items have been submitted:

1. The application
2. Transcripts of all undergraduate and graduate courses taken by the applicant: The application review process will be greatly expedited by uploading unofficial copies of transcripts. Official transcripts will be required before a student can enroll.
3. Official Test of English as a Foreign Language (TOEFL) scores (for international applicants whose native language is not English)
4. Three reference forms and letters of recommendation completed by persons closely acquainted with the applicant
5. Application fee or fee waiver
6. Any additional material or the interview required by the degree program

Admissions recommendations are made by the faculty of each degree-granting program. Disciplines naturally require different preparation and various aptitudes in their applicants, so the admissions process is necessarily decentralized.

Students may be admitted to study for the PhD degree directly from baccalaureate study or after undertaking other graduate or professional education, whether at Washington University or at another accredited institution.

## Admission of International Students

International students considering application to Washington University for graduate study should have a general familiarity with academic practices and university customs in the United States. All international students are required to present evidence of their ability to support themselves financially during graduate study. International students whose native language is not English must submit score reports from the TOEFL offered by ETS (<https://www.ets.org/>). The test should be taken in time for results to reach Washington University directly from ETS before the application deadline.

To be eligible for a TOEFL waiver, the applicant must have completed at least three years of study toward their degree from a regionally accredited university located in an English-speaking country. Please also note that the entire length of study must have been completed at the institution.

## Categories of Admission

Students are admitted to the Graduate School as full-time candidates for a specific degree program. There are also two ways to take graduate courses without admission to candidacy for a degree: as a Student Not Candidate for a Degree (SNCD) or as an Unclassified Graduate Student.

### Student Not Candidate for a Degree (SNCD)

SNCD admission may be granted to qualified students who hold a bachelor's degree or its equivalent, who wish to enroll in graduate courses on a non-degree basis, and who receive approval from a degree program. Examples include international exchange students who are studying at the university for a limited duration, students in good standing at other graduate schools, and students who wish to test their capabilities in a graduate setting. Students in this category are assigned faculty advisers and are accorded the same privileges as degree candidates. Applicants for SNCD study in the Graduate School should follow all application procedures outlined in the section headed "Application Process." Continuation as an SNCD is subject to the same academic and other standards that apply to degree candidates. In special cases, SNCDs might be eligible for financial aid.

### Unclassified Graduate Student

A student who wishes to enroll for selected graduate-level courses without admission to the Graduate School is generally permitted to do so by registering as an Unclassified Graduate Student with the registrar of the Graduate School. Application for admission is not required for such registration, and permission to register as an Unclassified Graduate Student does not constitute admission. Permission to take more than 6 units of graduate credit in any one program requires the approval of that program's director of graduate studies. Unclassified students are not eligible for student services, including financial aid.

## Acceptance of Admission and Award Offers

Washington University, along with most other graduate schools in the United States, subscribes to the following resolution of the Council of Graduate Schools:

Acceptance of an offer of financial support (such as a graduate scholarship, fellowship, traineeship, or assistantship) for the next academic year by a prospective or enrolled graduate student completes an agreement that both student and graduate school expect to honor. In that context, the conditions affecting such offers and their acceptance must be defined carefully and understood by all parties.

Students are under no obligation to respond to offers of financial support prior to April 15; earlier deadlines for acceptance of such offers violate the intent of this Resolution. In those instances in which a student accepts

an offer before April 15 and subsequently desires to withdraw that acceptance, the student may submit in writing a resignation of the appointment at any time through April 15. However, an acceptance given or left in force after April 15 commits the student not to accept another offer without first obtaining a written release from the institution to which a commitment has been made. Similarly, an offer by an institution after April 15 is conditional on presentation by the student of the written release from any previously accepted offer. It is further agreed by the institutions and organizations subscribing to the above Resolution that a copy of this Resolution or a link to the URL should accompany every scholarship, fellowship, traineeship, and assistantship offer.

Students to whom admission and financial awards are offered in March are requested to give notice in writing of the acceptance or rejection of their offers no later than April 15. Students to whom offers are made after April 1 are asked to reply within two weeks of receipt of the notice. Offers can be withdrawn if the deadline passes without any response from the student. Requests to extend deadlines or to reinstate withdrawn offers should be addressed to the degree program, which must endorse them before forwarding them to the Graduate School dean for final approval.

## Policies

Graduate students are governed by policies established by the university, the Graduate School, and the student's department, division or program. Therefore, the policies identified here and elsewhere in this *Bulletin* are not to be considered a complete list. However, every attempt has been made to identify the location of those policies that affect most or all students in the Graduate School.

In this *Bulletin*, the University Policies (p. 9) page covers many of the policies that apply to both graduate and undergraduate students, specifically in the areas of nondiscrimination, student health, student conduct, academic integrity, intent to graduate, and academic records and transcripts. In addition, it refers to the university's Compliance and Policies (<https://wustl.edu/about/compliance-policies/>) page. Graduate students should follow that page's links to the Information Technology, Computers and Internet Policies and to the Intellectual Property and Research Policies; most of the former and many of the latter will apply to all graduate students.

The Graduate School website has a Policies & Procedures (<http://graduateschool.wustl.edu/policies-procedures/>) page that includes links to the full text of several of its policies, including those related to the following:

- Academic and professional integrity for graduate students
- Alcohol service at events sponsored by graduate student organizations
- Consensual faculty-student relationships

- Dissenting votes at a dissertation defense
- Involuntary leave
- New child leave
- Part-time employment
- Probation and dismissal for academic reasons
- Student grievance procedures
- Time off
- Transfer of credit

Please note that the majority of these policies cover the same topics as quite different versions found elsewhere in the *Bulletin* or on the university's website but that are applicable only to undergraduate students. Reviewing these documents through the Graduate School website is the best way to guarantee access to the relevant policy for graduate students.

The minimum GPA requirements needed to maintain eligibility for Satisfactory Academic Progress are dictated by the specific program of study. In each case, per the requirements of 34 C.F.R. 668.34(a)(4)(ii), the federal student aid program requires a minimum of a C average to maintain eligibility for aid, but an individual degree or certificate program may have a higher minimum GPA for federal Satisfactory Academic Progress. The minimum GPA for good standing in the Graduate School is 3.0.

# Interdisciplinary Opportunities

Washington University offers courses through interdisciplinary programs that include studies in a variety of disciplines that cross traditional academic boundaries and support academic areas outside of the schools.

- A limited opportunity for some Washington University students to enroll in courses at Saint Louis University and the University of Missouri-St. Louis is available through the Inter-University Exchange Program (p. 183).
- The Skandalaris Center (p. 184) offers cocurricular programming and practical, hands-on training and funding opportunities to students and faculty in all disciplines and schools.

## Inter-University Exchange Program

The Inter-University Exchange (IE) program between Washington University, Saint Louis University (SLU), and the University of Missouri–St. Louis (UMSL) began in 1976 as an exchange agreement encouraging greater inter-institutional cooperation at the graduate level. Over time, this program has evolved to include undergraduate education. The basic provisions of the original agreement are still in place today, and participation continues to be at the discretion of each academic department or unit.

At Washington University, there are several schools that **do not participate** in this program (i.e., degree-seeking students in these schools are not eligible to participate in the IE program, and courses offered in these schools are not open to SLU and UMSL students attending Washington University through the IE program). They are the School of Law, the School of Medicine, the McKelvey School of Engineering, and University College. The Washington University schools that are open to participation in the IE program may have specific limitations or requirements for participation; details are available in those offices.

**The following provisions apply to all course work taken by Washington University students attending SLU or UMSL through the IE program:**

- Such courses can be used for the fulfillment of degree or major requirements. (Students should consult with their dean's office for information about how IE course work will count toward their grade-point average, units and major requirements.)
- Such courses are not regularly offered at Washington University.

- Registration for such courses requires preliminary approval of the student's major/department adviser, the student's division office or dean, and the academic department of the host university.
- Students at the host institution have first claim on course enrollment (i.e., a desired course at SLU or UMSL may be fully subscribed and unable to accept Washington University students).
- Academic credit earned in such courses will be considered as resident credit, not transfer credit.
- Tuition for such courses will be paid to Washington University at the prevailing Washington University rates; there is no additional tuition cost to the student who enrolls in IE course work on another campus. However, students are responsible for any and all fees charged by the host school.
- Library privileges attendant on enrolling in a course on a host campus will be made available in the manner prescribed by the host campus.

## Instructions

Washington University students must be enrolled full-time to participate in the IE program and have no holds, financial or otherwise, on their academic record at Washington University or at the host institution.

1. The student must complete the IE program application form. Forms are available from the Office of the University Registrar website (<https://registrar.wustl.edu/student-records/registration/the-inter-university-exchange-program/>).
2. The student must provide all information requested in the top portion of the form and indicate the course in which they wish to enroll.
3. The student must obtain the approval signature of the professor teaching the class or the department chair at SLU or UMSL, preferably in person.
4. The student also must obtain the approval signatures of their major adviser at Washington University and the appropriate individual in their dean's office.
5. Completed forms must be submitted to the Office of the University Registrar in the Women's Building a minimum of one week before the start of the term.

Course enrollment is handled administratively by the registrars of the home and host institutions. Washington University students registered for IE course work will see these courses on their class schedule and academic record at WebSTAC under departments I97 (SLU) and I98 (UMSL). Final grades are recorded when received from the host institution. The student does not need to obtain an official transcript from SLU or UMSL to receive academic credit for IE course work at Washington University.



Contact: Office of the University Registrar  
Phone: 314-935-5959  
Email: registrar@wustl.edu  
Website: <http://registrar.wustl.edu/student-records/registration/the-inter-university-exchange-program>

## Skandalaris Center for Interdisciplinary Innovation and Entrepreneurship

The Skandalaris Center for Interdisciplinary Innovation and Entrepreneurship (<https://skandalaris.wustl.edu>) is the home of WashU entrepreneurship.

### Mission

The Skandalaris Center aims to inspire and develop **creativity, innovation, and entrepreneurship** at Washington University in St. Louis.

### Who We Serve

We work with the best and brightest at WashU — the change makers, thought leaders, and visionaries — to solve the world's problems and meet local needs through innovation and entrepreneurship. As an interdisciplinary center, our initiatives serve students, faculty, staff, and alumni from all levels and disciplines.

### Our Initiatives

We develop programs for WashU entrepreneurs, creatives, innovators, and scholars. Our commitment to interdisciplinary innovation and entrepreneurship is motivated by the following beliefs:

- Everyone can be creative. We provide hands-on experiences and the creative means to solve problems.
- Innovation is the backbone of entrepreneurship. Our opportunities are designed to develop and share new ideas while connecting with other WashU entrepreneurs and innovators.
- Good ideas are one opportunity away from success. Our programs are created to help WashU entrepreneurs and innovators access the resources they need to take their ideas to the next level.
- Knowledge and skills are key to innovation and entrepreneurship. Our Center offers events and opportunities to help our community of WashU entrepreneurs, creatives, and innovators learn the ins and outs of innovation and entrepreneurship.

## Programs

- **Global Impact Award (GIA) (<https://skandalaris.wustl.edu/sc-programs/global-impact-award/>)**  
The GIA awards WashU-affiliated ventures with inventions, products, ideas, and business models that will have a broad and lasting impact on society.
  - **Who Can Apply:** WashU students, postdocs, residents, and alumni who have graduated within the last 10 years
  - **Award:** Up to \$50,000
- **The Hatchery (<https://skandalaris.wustl.edu/sc-programs/hatchery/>)**  
The Hatchery is a course offered by Olin Business School that allows student teams to pursue their own business ideas or to support community entrepreneurs. Students form teams around a commercial or social venture idea proposed by a student or community entrepreneur. The deliverables for the course include two presentations to a panel of judges and a complete business plan; these are similar to the deliverables in the Skandalaris Center's business plan competitions and can be a valuable first step toward competitions and funding for a new venture.
- **Honors in Innovation & Entrepreneurship (<https://skandalaris.wustl.edu/sc-programs/honors-in-innovation-and-entrepreneurship/>)**  
Students who have shown exemplary involvement in innovation and entrepreneurship during their time at Washington University are recognized through this program. Honors are earned by accumulating points through a combination of curricular and cocurricular activities.
- **IdeaBounce (<https://skandalaris.wustl.edu/sc-programs/ideabounce/>)<sup>®</sup>**  
IdeaBounce<sup>®</sup> is both an online platform and an event for sharing venture ideas and making connections. This is an opportunity for participants to pitch their ideas (no matter how "fresh"), get feedback on them, and make connections. In-person events happen around twice per semester.
- **Innovation Conversations (<https://skandalaris.wustl.edu/sc-programs/innovation-conversations/>)**  
These interactive discussions showcase different topics and industries with a variety of creators, innovators, and entrepreneurs.
- **LEAP (Leadership and Entrepreneurial Acceleration Program) (<https://skandalaris.wustl.edu/sc-programs/leap/>)**  
LEAP is a hybrid virtual incubator and gap funding program designed to tackle opportunities in university technology commercialization, illuminate investment risk, and rapidly accelerate the development of validated projects.
  - **Who Can Apply:** Any person or team with WashU intellectual property
  - **Award:** Up to \$50,000

- **NSF Skandalaris I-Corps (<https://skandalaris.wustl.edu/sc-programs/nsf-i-corps/>)**

This is an experiential entrepreneurship program that supports scientists seeking to commercialize technology and engages experienced entrepreneurs as mentors to help teams transform an idea into a viable technology company.
- **PhD Citation in Entrepreneurship (<https://skandalaris.wustl.edu/sc-programs/entrepreneurship-citation/>)**

This program provides opportunities for PhD students who are interested in developing skills and experiences in the areas of entrepreneurship and innovation.
- **Resources (<https://skandalaris.wustl.edu/resources/>)**

The Skandalaris Center, Washington University, and external services and resources are available to support innovators and entrepreneurs.
- **Simon Initiative (<https://skandalaris.wustl.edu/sc-programs/the-simon-initiative/>)**

The Simon Initiative is a multistage collaborative initiative to expand diversity and interdisciplinary approaches to entrepreneurship.
- **Skandalaris Startup Webinars (<https://skandalaris.wustl.edu/sc-programs/skandalaris-startup-webinars/>)**

These webinars provide an exciting way for alumni to reconnect and share their experiences with entrepreneurship.
- **Skandalaris Venture Competition (SVC) (<https://skandalaris.wustl.edu/sc-programs/svc/>)**

The SVC provides expert mentorship to new ventures and startups to ready them for commercializing their ideas, launching, and pitching to investors. Teams will develop materials focused on explaining the ideas that they are working on to a broad audience.

  - **Who Can Apply:** Current Washington University students with an early-stage venture or idea
  - **Award:** Up to \$22,500
- **Student Groups (<https://skandalaris.wustl.edu/sc-programs/student-groups/>)**

There are many organizations that allow students to gain experience and make valuable interdisciplinary connections in the areas of creativity, innovation, and entrepreneurship.
- **Washington University in St. Louis Entrepreneurship Courses (<https://skandalaris.wustl.edu/sc-programs/entrepreneurship-courses/>)**

Courses in entrepreneurship offered across the university are available to students at all levels and in all disciplines.
- **Workshops (<https://sc.wustl.edu/events/>)**

The Skandalaris Center offers free, noncredit workshops designed to encourage creativity, innovation, and entrepreneurship.

## Learn More

Please contact the Skandalaris Center (<https://skandalaris.wustl.edu/get-connected/>) to sign up for our newsletter and for additional information about all programs.

Phone: 314-935-9134  
Email: [sc@wustl.edu](mailto:sc@wustl.edu)  
Website: <http://skandalaris.wustl.edu>

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