

Create change.

PHD PROGRAM 2023-2024

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Olin Business School

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ACADEMIC CALENDAR

Fall Semester 2023

First Day of Class August 28

Labor Day (no classes) September 4

Fall Break October 7-15

Thanksgiving break (no classes)

November 22-26

Last day of classes December 8

Spring Semester 2024

First day of classes January 16

Martin Luther King holiday – no classes January 15

Spring break (no classes) March 10-16

Last day of classes April 26

Final exams April 29-May 8

Commencement-Class of 2024 May 14

INTRODUCTION

Washington University in St. Louis is one of the nation's leading research institutions and is committed to excellence in teaching, as well as scholarship. The Olin Business School (Olin) doctoral program in business, first offered in 1958, combines the rigorous curriculum of a top-ranked university with the individual attention made possible by our limited enrollment.

The Ph.D. program is not only an exploration of the knowledge in a given discipline but also an original contribution to it. 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 individual who earns the Ph.D. degree is no longer a student but a colleague of the faculty. It is for this reason that the Ph.D. is the highest degree offered by a university.

The Olin Ph.D. program provides an intellectually challenging core curriculum and a strong background in fundamental disciplines, one-on-one mentoring relationships with highly respected faculty, and a collegial network built on mutual respect and shared thinking. Students acquire strong problem-solving skills that equip them to strategically address complex, unstructured business issues, and that result in innovative thinking and new ideas for research

Pursuing a Ph.D. in business at Olin requires a commitment not only from the student but from the student's family and friends as well. To be successful in the Olin Ph.D. program, students must spend long hours immersed in coursework, studying for preliminary exams, and working on research. A sincere commitment is required, but the commitment promises significant personal and professional returns.

OLIN'S MISSION

Create knowledge. Inspire individuals. Transform business.

CORE VALUES

Our shared values bond us together and inform the actions of everyone at Olin. These values are grounded in our heritage and will guide us in our second century of providing exceptional business education.

- **Excellence**—We have an unwavering commitment to excellence in all that we do, continually striving to provide the highest level of educational experience, learning opportunities, and research.
- Leadership—Olin cultivates a leadership mind-set, infusing students with both the value of acting responsibly and the desire to make an impact in whatever path they pursue.
- **Integrity**—Our Midwestern heritage is the cornerstone of our character—we are honest, hardworking, authentic, loyal, and supportive.
- **Collaboration**—Our culture fosters a collaborative community that creates innovative ideas, unique opportunities, and strong personal bonds.
- **Diversity**—We embrace the diversity of individuals, cultures, ideas, and opinions for the richness it brings to our school.
- **Respect**—We appreciate everyone for their opinions and contributions, regardless of position or status, and show each other respect at all times.

DOCTORAL COMMITTEE

The Doctoral Programs Advisory Committee, listed for the 2023-2024 academic year, is responsible for the development and management of doctoral programs.

Stephen Ryan (Chair), Senior Associate Dean of Doctoral Programs and Myron Northrop Professor of Economics

David Ahn, Professor of Economics

Edwige Cheynel, Associate Professor of Accounting

Cynthia Cryder, Associate Professor of Marketing

Erik Dane, Associate Professor of Organizational Behavior

Armando Gomes, Associate Professor of Finance

Lamar Pierce, Professor of Organization & Strategy

Dennis Zhang, Associate Professor of Supply Chain, Operations, and Technology

Mark Leary (Ex Officio), Co-Vice Dean of Faculty and Research and Professor of Finance

Jessica Hatch (Ex Officio), Assistant Dean and Director of Doctoral Programs

PhD Program Residency

The PHD program at Olin Business School is full-time and residential. We strive to create a collaborative and engaging academic community. All coursework is taught in-person and on campus. During the academic year (fall and spring semesters), PhD students are expected to be physically present on campus and participate fully in activities. Students may travel or take personal time during their winter or summer breaks. Any absence from campus lasting longer than two weeks and occurring during the regular academic year must be first approved by the faculty coordinator in the area and then approved by the Senior Associate Dean of Doctoral Programs. Requests should be submitted in advance and in writing to the program office.

DEGREE REQUIREMENTS

To earn a Ph.D. degree in Olin Business School, students must meet the following general requirements:

- 36 graduate credit hours*
 - *36 credits is the minimum threshold; students in some areas, including Finance and Accounting, may need to exceed the minimum to ensure that all required courses have been taken. Students should consult with their faculty advisor for a complete list of required courses.
- Completion of presentation skills seminar and additional communication course
- Completion of mentored teaching experience requirements
 - Maintain satisfactory academic progress, as further described below.
- Pass required milestones, including but not limited to the preliminary exam, area qualifying exam and second-year paper
- Thesis proposal and oral defense of the thesis proposal by the end of the 4th year
- Dissertation and oral defense of the dissertation by the end of the 6th year

The following rules apply:

- Students are expected to earn a "B" or higher in all 500-level Ph.D. courses. Students who receive lower grades, including but not limited to falling below a 3.0 cumulative GPA will be reviewed by the Committee and may be subject to academic probation or dismissal.
- Up to 12 units of credits earned in graduate work at a previously attended university may be transferred if approved.
- Transfer of credit is considered only after two years of coursework at Olin and requires approval of the area's representative on the Doctoral Programs Advisory Committee. A syllabus and coursework will be requested to review transfer potential.
- Students must complete all required core courses unless they receive
 written approval to waive such a course. A waiver does not reduce the
 number of credits that a student must complete to earn the doctoral
 degree. Waivers are intended to allow students to avoid redundant
 study of subjects already mastered and to advance in other subject
 areas.
- Full-time students register for 9 to 12 hours per semester, completing
 the 36-credit requirement in their first two years of graduate study.
 Thereafter, students maintain full-time student status by registering for
 continuing doctoral student status at the beginning of each semester
 until they have defended their dissertation and completed all other
 requirements for the doctoral degree.
- Students who fail to register for two consecutive semesters will be considered candidates for dismissal.
- Only graduate-level courses that a doctoral student takes for a grade are counted toward the student's 36-credit program requirement. In addition, all courses must be approved in advance by the student's advisor and the doctoral program as eligible to be counted toward the student's degree. Audited courses and courses taken pass/fail (or credit/no credit) are not counted toward the doctoral degree and may not be eligible for tuition remission.

Students should consult their advisors regarding these options.

Student academic performance is evaluated at the end of each semester and must be maintained at a level that is consistent with the standards established by Olin Business School.

Ph.D. ADVISOR POLICY

Ph.D. students are required to be supervised by a principal faculty member throughout their enrollment. By default, the area coordinator serves in this capacity and supervises students in the first two years. In exceptional circumstances, second-year students may be supervised by an alternate faculty in their academic area. Alternative arrangements must be reported to the program office. By the beginning of year 3, students must report their principal faculty advisor to their area faculty coordinator and the doctoral programs office. At the end of each semester, the principal advisor will submit a written evaluation of progress to be included in students' academic record.

Faculty choose whether or not they will supervise or advise students. If a student cannot identify a faculty member from their academic area willing to supervise them by year 2 or serve as their advisor by year 3, they are not considered to be making satisfactory academic progress.

POLICY ON PROBATION

AND DISMISSAL FOR ACADEMIC REASONS

This policy, more fully described below, gives guidelines and procedures for probation and dismissal because of poor academic performance for students enrolled in the Olin Ph.D. program. Academic Dismissal is distinct from withdrawal (initiated by the student), deactivation of a student's record by a failure to register, and dismissal or other sanctions

associated with the Academic and Professional Integrity Policy or the University Student Conduct Code.

Olin Ph.D. students must also maintain satisfactory academic progress as defined below.

Failure to maintain satisfactory academic progress may result in immediate dismissal or in academic probation for the ensuing year. Most financial awards, and all federally funded awards, are contingent on the student's maintaining satisfactory academic progress.

Satisfactory Academic Progress

The following are the minimum standards of satisfactory academic progress for Ph.D. students:

- Students are expected to proceed at a pace appropriate to enable them to finish within the required time limit. By the end of the fourth year of full-time graduate study, students are expected to have completed all Ph.D. requirements except the dissertation.
- Students are expected to maintain a cumulative grade point average of at least 3.0 on a 4.0 scale, and the minimum GPA required may be higher depending upon the Area. The Doctoral Programs Committee will review students who have a grade point average lower than 3.0 or receive three or more 'B-' grades. Students may be placed on academic probation or be dismissed based on the Committee's review.
- Only coursework receiving a "B" or higher is counted toward the 36credit requirement.
- During any semester, students may not carry more than 9 credit hours for which a grade of "I" (incomplete), "X" (final examination missed), or "N" (not submitted yet) is recorded.
- Grades of "I" (incomplete) or "N" (not submitted) must be cleared within one-semester term from the end of the course. Registration may be restricted until grades are recorded for prior semesters.

- Faculty supervision is required in the PhD program. Starting in year
 two, students must have a faculty member in their area willing to
 supervise them. For 2nd year students, most often, this would be the
 area faculty coordinator. If a student cannot identify a faculty
 member in their academic area willing to supervise them in year 2 or
 serve as their advisor by year 3, they will be considered not to be
 making satisfactory academic progress.
 - 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.

Satisfactory Academic Progress for Title IV Federal Financial Aid

The minimum GPA requirements needed to maintain eligibility for Satisfactory Academic Progress are dictated by your specific program of study. In each case, per the requirements of 34 C.F. R. 668.34(a) (4(ii), the program requires a minimum of a C average to maintain eligibility for aid, but any specific program may have a higher minimum GPA for federal Satisfactory Academic Progress. Olin Business School requires a 3.0 minimum GPA.

Students in doctoral programs have **seven calendar years**, starting on the date of their first registration in a graduate degree program at Washington University, to complete the degree requirements. Extension of the period of doctoral study may be granted on an annual basis if circumstances warrant.

To request an extension, Olin Ph.D. students must submit an application to and receive approval from the Doctoral Programs Office.

Guidelines for Academic Probation and Dismissal

Except for circumstances justifying immediate dismissal, a student cannot be dismissed on the basis of academic performance without the opportunity to return to good standing during an identified period of probation. The purpose of probation is to: (1) explicitly warn the student of his or her status, (2) provide the student with clear guidelines of the performance that will be necessary to return to good standing, and (3) provide the student with reasonable time to meet these expectations. To meet these objectives, probation normally should be designated for a minimum of three months. When the probation criteria involve coursework, then the probation period would normally correspond to the semester duration. A student on probation must receive a detailed letter from the program office, stating the reasons for the probation and explicitly identifying the steps necessary for the student to return to good standing by the end of the probation period.

At the end of a first probation, the student may be: (1) returned to good standing, (2) placed on a second consecutive probation, which generally will be for a full semester, or (3) dismissed from the program. A second consecutive probation must be accompanied by a new letter identifying the steps required to return to good standing. While the purpose of the probationary period is to provide the student with time to improve, the decision of the program at the end of a probationary period could involve immediate notification of dismissal.

At the end of a second continuous probation, the student will be either returned to good standing or dismissed. A third probation will be allowed only if it is not continuous. A fourth probation will not be permitted. A student whose performance would result in a fourth probation will be dismissed immediately. A leave of absence cannot be

used by a student to delay or nullify the consequences of a third consecutive or fourth probation.

Each area must have a standard procedure to manage 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 procedure for managing such decisions must be applied to all students in the program and cannot be managed solely by an individual faculty member, including the student's research mentor, though the input provided by the research mentor may play a key role in the process.

Stipend support should continue during a probationary period unless the student is failing to meet basic expectations. During all probationary semesters, tuition remission will remain as offered at initial enrollment.

Notification Procedures for Academic Probation

1. The explanation of academic performance issues leading to probation should be specific (low GPA, failed exam, etc.) and contain a clear statement of what must be done within a specified period of time in order for the student to return to good standing. This includes probation associated with faculty judgments of research potential, timely progress toward the degree, teaching performance or professional responsibilities. The expectations will be consistent with those held for all students in the program. They must be communicated in writing, accompanied by the opportunity to meet with the designated departmental faculty representatives for a clarifying discussion.

- 2. If the student does satisfactorily meet the requirements of the probation, a written notice of reinstatement, including the date that the student has returned to good standing, will be provided to the student. Students may be reinstated before the end of the probation period if they have met the requirements for reinstatement.
- 3. Copies of any letter or e-mail to the student, or summary notes of discussions with the student regarding the student's placement on probation should be placed in the student's file, which the student has the right to review.

Notification Procedures for Academic Dismissal

- 1. Students who do not meet the requirements of the probation by the specified time and the program recommends dismissal, the faculty coordinator of the student's program will send a request for dismissal. The draft dismissal letter will include the grounds for dismissal, the effective date of dismissal and advice to the student that voluntary withdrawal from the program is an option.
- 2. If the student is an international student on a visa, the doctoral programs office will consult with the Office of International Students and Scholars prior to finalizing the dismissal letter. It is often advisable for an international student to withdraw ahead of a dismissal to avoid an adverse impact on future entry to the U.S.

Appeal Procedures

In cases of probation or dismissal, a student may appeal within 14 calendar days to the department chair or another designated faculty representative, consistent with Department or Program procedures.

Probation

Appeals of probation end with the Chair of the department or program. In cases where there is a perceived conflict of interest with the Chair, another member of the department can be designated to address the appeal process for probation or dismissal.

Dismissal

For academic dismissal decisions, an Olin PhD student may submit a final appeal of his/her dismissal to the Senior Associate Dean of Doctoral Programs. Appeal requests must be initiated at the appropriate level within 14 calendar days of formal notification of probation or dismissal. Responses to appeals generally occur within the next 14 calendar days after the appeal is requested.

Stipend support is discontinued at the time the student is notified of dismissal. The student is not eligible to receive stipend support during an appeal of dismissal; however, if the appeal is upheld, the student is eligible for stipend support covering the period of the dismissal appeal process. Students who have chosen to withdraw from their program or department (as opposed to taking an authorized leave) cannot appeal or seek reconsideration of this decision.

ACADEMIC AND PROFESSIONAL CODE OF CONDUCT

Academic Integrity

Ph.D. students are required to espouse academic integrity in all areas of their academic and research activities. The University's Academic and Professional Integrity Policy for PhD Students is found <u>HERE</u>. In addition, the Doctoral Programs emphasizes the importance of attributing any material you use in assignments or research papers to the original

source, and to check with the relevant faculty whenever in the slightest doubt. Falsifying or misrepresenting data or using material (including code, empirical or simulation results and theoretical results and proofs) developed by others without full attribution are considered serious offenses.

Professional Code of Conduct

Olin PhD students are expected to behave in accordance with the school's code of conduct for all of its graduate programs, which is described below.

Olin Business School – Graduate Student Code of Professional Conduct

Overview

The Code of Professional Conduct ("the Code") is meant to encourage and clarify appropriate classroom, interpersonal, and extra-curricular etiquette that is expected of each individual by their peers, the faculty, and the institution. It is also intended to help describe the overall environment of excellence and professionalism that all members of the Olin community seek to establish and to continually enhance. It is the responsibility of each member of the Olin community to uphold the spirit, as well as the principles of the Code of Professional Conduct.

Expectations – Professional Standards of Conduct

In keeping with these shared expectations, Olin graduate students are expected to conduct themselves at all times in a professional manner. Professional behavior includes, but is not limited to, the following items:

In the classroom

Attendance: Students are expected to attend each class session.
 Students who must miss a session for any reason should make

every effort to notify the instructor prior to the class meeting. Informing faculty or seeking ex post permission after missing a class or portion of a class is unacceptable behavior and is subject to academic sanctions. Students should never register for courses scheduled in conflict with one another.

- Punctuality: Students are expected to arrive and be seated prior to the start of each class session.
- Behavior: Classroom interaction will be conducted in a spirited manner, but always while displaying professional courtesy and personal respect.
- Preparation: Students are expected to complete the readings and other assignments prior to each class session and be prepared to actively participate in class discussion.

Distractions:

- Exiting and Entering: Students are expected to remain in the classroom for the duration of the class session unless an urgent need arises or prior arrangements have been made with the professor
- 2. Laptop, Tablet, and Other Electronic Device Usage: Students are expected to use laptops, tablets, and other electronic devices only with the instructor's consent and for activities directly related to the class session. Accessing e-mail or the Internet during class is not permitted, as this can be distracting for peers and faculty.
- 3. Smart/Mobile Phone Usage: Students are expected to keep their mobile phones turned off or have them set on silent/vibrate during class. Answering phones while class is in session is not permitted.
- 4. Other distractions-specifically identified by individual instructors, such as eating in the classroom.

Outside the classroom

 Students are expected to conduct themselves responsibly and professionally when dealing with all members of the Olin and Washington University communities as well as in the career search

- process, at club activities, networking events, job interviews, and other functions where they are representing the Olin community.
- Facilities: Students are expected to help maintain the appearance and the functionality of the building, classrooms, and other facilities.

Students are expected to abide by the University Student Conduct Code: <u>University Student Conduct Code</u> - <u>Washington University in St. Louis</u> (wustl.edu)

Dean's Advisory Committee

Purpose: The purpose of the committee is to have a diversified and representative group of stakeholders provide input to the dean on issues that are of consequence for Olin, so that the decisions made by the dean reflect the views and wisdom of these stakeholders. The goal is to make this part of the decision-making process more inclusive and thoughtful. *This committee will consider, process and address only issues or complaints that require a decision by the dean*. All other complaints or issues will be handled by appropriate committees and their respective processes. This is a key advisory committee to the dean and, as such, has a direct reporting relationship. This is *not* meant to replace the purpose of any other school or university committees. Please see below for a list of other resources.

Scope: This committee targets appropriate and equitable resolution to:

- Student complaints about the school and its programs that are not covered by committees listed below.
- Staff complaints regarding students that require a decision by the dean. Staff complaints may be referred to the Olin Professional Code of Conduct process based on the circumstances.
- Issues that are ultimately referred for decision by the dean after a review by other university committees, Olin's Academic Integrity and Professional Code of Conduct Committee, or Program Curriculum committees.

Committee Structure

Reports to the dean

- Chaired by a senior Olin faculty member
- Members will include
 - Senior associate deans of undergraduate and graduate programs
 - One student from each Olin full-time program: MBA, BSBA, SMP, PhD
 - For BSBA, MBA and SMP, we will select students who are in leadership roles or whom the senior leader of the specific program designates.
 - Two tenured faculty members
 - One teaching track faculty member
- Other members (optional based on the issue)
 - Faculty chairs of BSBA, respective Graduate Program, and Doctoral committees

Process

- For student or faculty, the process will start by contacting an academic advisor or senior program lead.
- For staff, the process will start by contacting a department lead or Olin human resources.
- If an issue falls under the jurisdiction of an existing university or school process, it will be referred to the appropriate resource.
- A committee meeting will be scheduled in an expedient manner to provide timely input. The committee will act as quickly as possible based upon the issue. The committee will act in the needed time to review all the necessary information and seek input prior to formulating a recommended solution or decision to the dean.
- Affected individuals will be given the opportunity to present their perspectives on the issue.
- The committee may follow up with questions or interview others affected by the complaint.
- The committee will recommend (in writing) a course of action to the dean.
- The dean will recommend to the committee leads how communication to relevant individuals should be handled.

- Beyond the issue management of this committee's scope, the dean will also receive readouts about monthly meetings involving students and their concerns as a post-mortem. Understanding the trends in issues can provide proactive advice to the dean about potential policies and procedures to reduce the reoccurrence of similar issues.
- In addition, the dean will also receive an annual report that includes suggested proactive policies and procedures for issues that may be consistently arising.

Expedited process:

The chair of the committee has the discretion to use an expedited process if the issue is deemed sufficiently time sensitive that it needs to be resolved quickly. In this case, the committee chair has the discretion to assemble only a subset of the committee (depending on availability of committee members and the nature of the issue at hand) either in person, by Zoom or some hybrid option, to process the complaint, have the necessary analysis and discussions and make a recommendation to the dean. This will ensure that urgency of resolution is not a reason to not utilize the committee.

Existing processes and committees

- University Code of Conduct:
 - Scope: This code applies to the following members of the Washington University community: (a) individuals who are paid by Washington University when they are working for the university—including faculty and staff; (b) consultants, vendors and contractors when they are doing business with the university; and (c) individuals who perform services for the university as volunteers. The Code of Conduct refers to all these persons collectively as "members of the university community" or "community members."

• <u>Title IX (student)</u>:

 Scope: These processes apply to formal complaints that a student has engaged in conduct prohibited by Title IX ("Prohibited Conduct"), defined as conduct on the basis of sex that occurs in an "education program or activity" against a person in the United States, and that satisfies one or more of the following:

- A university employee conditioning the provision of an aid, benefit or service of the recipient on an individual's participation in unwelcome sexual conduct;
- Unwelcome conduct by an employee determined by a reasonable person to be so severe, pervasive and objectively offensive that it denies a person equal educational access; and/or
- Any instance of the following conduct, as defined by the Clery Act: sexual assault, stalking, dating violence or domestic violence.

Title IX (faculty):

- Scope: These processes apply to formal complaints that a faculty member has engaged in conduct prohibited by Title IX ("Prohibited Conduct"), defined as conduct on the basis of sex that occurs in an "education program or activity" against a person in the United States, and that satisfies one or more of the following:
 - A university employee conditioning the provision of an aid, benefit or service of the recipient on an individual's participation in unwelcome sexual conduct;
 - Unwelcome conduct by an employee determined by a reasonable person to be so severe, pervasive and objectively offensive that it denies a person equal educational access; and/or
 - Any instance of the following conduct, as defined by the Clery Act: sexual assault, stalking, dating violence or domestic violence.

University Student Conduct Code

 Scope: The University 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. Respect for different points of view is essential. Nothing in this Code should be construed to limit the free and open exchange of ideas and viewpoints, even if that exchange proves to be offensive, distasteful, disturbing or denigrating to some

- Discrimination and Harassment (and committee) Policy
- Bias Report and Support System
 - Scope: Following these values, the university developed a system through which students, faculty, staff and community members who have experienced or witnessed incidents of bias, prejudice or discrimination involving a student can report their experiences to the university's Bias Report and Support System (BRSS) team. If you would like to report a bias incident that does not involve a student, please contact Human Resources.
- Olin's Procedure for Student Complaints and Grievances (Student Affairs Office)

Orientation

The doctoral programs office will host a PhD orientation meeting annually prior to the first day of classes. Attendance is mandatory for students in years 1-5. If you believe you have a conflict and wish to seek approval for an excused absence, please submit your request to the Director of Doctoral Programs no less than 7 days in advance of the orientation. Excused absences will only be approved for exceptional circumstances. The date of orientation will be published by the end of the spring semester and students should plan accordingly.

Grading

The following is the interpretation of grades for coursework in the Graduate School:

Α	Outstanding	The quality of work is distinctly superior.
В	Good	Performance is satisfactory and represents the academic attainment in the course expected of promising candidates for a graduate degree. Coursework receiving a grade of "B-" or below is not counted toward the degree.
С	Conditional - Unsatisfactory	Poor quality of performance that falls short of that regarded as entirely satisfactory at the graduate level. Units of credit with a grade of "C" must be matched by an equivalent number of credits with a grade of "A." Coursework receiving a grade of "C" is not counted toward the degree.
F	Fail	The student will be placed on academic probation. Coursework receiving a grade of "F" is not counted toward the degree.
N/I	Incomplete	A grade of "N" is recorded when otherwise satisfactory work in a course or seminar is not completed. After twelve months, an unchanged "N" becomes a permanent part of the student's transcript and may not be changed to another grade. Students with more than nine units of "N" or no grades reported are not permitted to register for courses.

All areas require passing grades for coursework.

TEACHING REQUIREMENTS

MENTORED TEACHING EXPERIENCE

Graduate students participating in mentored teaching experiences are highly valued members of the Washington University instructional team. The mentored teaching experience varies widely across disciplines. They may include assisting faculty in the preparation, instruction, and grading of an undergraduate course; tutorial responsibilities; monitoring the laboratory segment of an undergraduate course; and, in some instances, full course responsibility. For all mentored teaching experience, excluding full course responsibility, students register for the Mentored Teaching/Research Assistance course (MGT 6000). It is required that students in years 2 – 5 participate in either a mentored teaching or mentored research experience each semester. Students on the academic job market in their 5th year may request a one-semester exemption subject to area approval. A written request for an exemption must be submitted to the program office by April 30th of the 4th year.

In order to focus on coursework and acclimate to the program, first-year students do not participate in mentored teaching experience and are prohibited from accepting any other teaching or research assignments, including voluntary or paid positions.

Overview

Olin Business School requires Ph.D. students to complete the following communication and pedagogical training:

Students must attend the Graduate Student Mentored Teaching Orientation held by the Center for Teaching and Learning prior to the beginning of the second year of the doctoral program. Orientation is typically held once a year in August.

- Formal Instructional/Teaching Experience: Participate in a teaching preparation seminar, instructional workshop, internship, or course that addresses course design and classroom facilitation.
- Formal Communication Experience: Participate in at least one communication seminar, instructional workshop, or course that addresses communication and presentation skills and includes classroom instruction to an undergraduate or master's level audience.
- 3. **Deliver Annual Presentation**: Prepare and deliver annual presentations to the doctoral program faculty in the student's chosen field of study (e.g., accounting, business economics, finance, marketing, organizational behavior, operations, and manufacturing management, or strategy) beginning in the second year of the doctoral program.
- 4. **Present Working Paper**: Present a working paper at a conference, job-market seminar, or consortium prior to graduation.

Once the teaching requirement has been fulfilled, the student must file a Teaching Requirement Form with the department doctoral programs office. Please contact the Doctoral Programs Office for the form.

ADDITIONAL TEACHING EXPERIENCE OPPORTUNITIES: There are also other opportunities to gain teaching experience. The Teaching Citation program offers graduate certificates related to teaching, and technology workshops offer doctoral students opportunities to enhance their teaching skills and credentials.

Teaching Citation

The optional <u>Teaching Citation</u> program requires attendance at non-credit workshops on teaching, varied teaching experiences, faculty and student evaluations, and preparation of a detailed teaching philosophy statement. Students interested in earning a Teaching Citation should schedule a preliminary consultation with the <u>Center for Teaching and Learning</u>, 314-

935-5921. Students are encouraged to schedule this meeting during the first semester of their second year in the Ph.D. program.

Assignment to Faculty for Mentored Teaching/Research Assistance

Prior to the fall semester, students years 2-5 will be asked to submit their top three choices for assignment to faculty for mentored teaching/research experience. This information will be collected by the Doctoral Programs Office and sent to the area faculty coordinator who will make assignments. The rules for making the allocations are as follows: (1) Each student receives his/her top choice of faculty, unless two or more students bid for the same faculty, in which case the faculty member gets to choose; (2) no faculty member is assigned more than one student until every faculty member has one student; (3) if a student cannot be assigned his/her first choice (because more than one student bid for that faculty), then they should be given their second choice and so on. Assignments will last for the entirety of the academic year. Assignment can be either teaching or research at the discretion of the faculty, taking into account the needs of the student. Each academic area should determine the guidelines for mentored teaching and research assistance work. A description of the mentored experience should be provided by the faculty to the student and the program office prior to the start of the semester.

Mentored Teaching/Research Assistance Course Description

MGT 6000 Mentored Teaching/Research Assistance (3 credits): Students will engage in either research assistantship or teaching assistantship activities to gain practical experience in conducting research and teaching courses. This course requires students to engage in activities for a minimum of 10 hours a week, with a maximum of 20 hours per week.

CURRICULUM: Typical Chronology of the Ph.D. Program*

Year One

- Core foundation coursework
- Microeconomics comprehensive preliminary exam, if required by the department (offered in June)
- Seminars/workshops in the field of study
- Summer paper, if required by the department

Year Two

- Courses and individual study in major field (as recommended by the advisor)
- Completion of two semesters of Mentored Teaching/Research Assistance
- Seminars/workshops in major field
- Presentation of one research paper
- Completion of the Qualifying Field Exam requirement

Year Three

- Completion of two semesters of Mentored Teaching/Research Assistance
- Completion of remaining field requirement
- Presentation of one research paper
- Seminar in presentation skills (B53-660)
- Additional communication course, see p.28-29
- Begin preparation of dissertation proposal (spring semester)

Note: Field requirements are expected to be completed within the first 36 months of the program.

Year Four

- Completion of two semesters of Mentored Teaching/Research Assistance
- Oral defense of dissertation proposal
- Submission of dissertation title, scope, and procedures
- Begin plans for job search

Year Five

- Completion of two semesters of Mentored Teaching/Research Assistance
- Oral defense of dissertation
- Enter job market

Preliminary Exam in Microeconomic Theory

Some areas require that students take the preliminary exam in economics at the end of the first year. Each area that requires the exam sets the definition of a passing grade.

Olin Ph.D. students are required to take a five-hour microeconomics theory examination concentrating on applications of the theory, offered in late June after the first year of the program. Students are expected to stay in residence after the end of spring-semester classes to study for this exam.

The grading scale for the microeconomics exam is as follows: Ph.D. pass, borderline pass, MA pass, and fail. The exams are graded anonymously by a committee consisting of the first-year instructors, which issues one grade for each student exam. In the event that it cannot make a positive decision based solely on a student's performance on the examination, the Committee will also consider the student's first-year course grades. The Committee usually meets to evaluate student performance on the exams by mid-July.

^{*}Each area has specific requirements that can be found online.

The area faculty, in consultation with the Ph.D. Programs Office, determines whether the student will be allowed to continue in the program. The normal expectation of areas that require the economics prelim exam is that a "Ph.D. Pass" grade is required for a student to maintain good student status. Students who fail the prelims are placed on academic probation and re-evaluated based on their summer paper submission and academic performance in the first year.

First-Year Paper

Some areas require a first-year or "summer" paper to expose the student to the full range of activities required to successfully conduct independent research. This paper is evaluated by area committee representatives during the first two semesters of the second year, and the evaluation is provided to the student.

Second-Year Paper

Students must produce a satisfactory research paper before taking the major qualifying exam and are expected to begin the paper no later than one year after entering the Ph.D. program.

The second-year paper is presented to area faculty for its evaluation, usually during a faculty brown-bag or departmental seminar. The student, in consultation with his or her Ph.D. advisor, selects a paper review committee consisting of two full-time faculty members. Presentation deadlines vary by area.

Although the research paper is expected to have all of the elements of a publishable paper, the overall quality need not be at a level sufficient to merit publication. For example, the typical empirical paper should have all of the elements of a typical empirical article appearing in leading journals in the student's area. Similarly, a theoretical paper should have a sufficiently broad range of development to warrant comparison with similar work published in the area.

Failure to produce a satisfactory paper, as determined by the review committee, will constitute unsatisfactory performance and will result in a review of the student's academic performance and status by the Doctoral Program Committee.

Qualifying Field Examination (Comprehensive Exam)

Doctoral students must take a written qualifying examination to demonstrate their comprehensive knowledge in their major field within three years of their entry into the program. The examination may be taken before the student has completed all coursework; however, students typically take this examination immediately after completing foundation coursework.

Students make arrangements for taking this examination with their Ph.D. advisor. Students who fail the examination may arrange to retake it. Only in unusual cases, and on written petition to the Olin Doctoral Programs Committee, can a student take the examination more than twice. If such approval is not granted, a student who has twice failed the examination will be dismissed from the program.

These examinations are under departmental control. The responsible department provides notification of the test result to both the Doctoral Programs Office and the student.

Annual Progress Report

In order to prepare an annual assessment of student progress, the doctoral program requires that students submit the following, to both their area advisor and the program office: a current CV, a grade summary, and all research projects conducted during the year. Failure to comply with this requirement will result in academic probation or suspension from the program.

COURSES

Foundation Courses

All first-year students whose concentrations are in accounting, business economics, finance, marketing science, operations and manufacturing management, and strategy are required to take the two-course sequence in microeconomics and one course in econometrics. Additional courses required in the first year are determined by the advising faculty in the student's proposed field of study.

External Courses

The following are the foundation courses, all offered outside Olin:

Econ 511	Quantitative Methods in Economics I
Econ 512	Quantitative Methods in Economics II
Econ 513	Introduction to Econometrics
Econ 5161	Applied Econometrics
ESE 503	Operations Research
ESE 520	Probability and Stochastic Processes
ESE 544	Optimization and Optimal Control
Psych 5011	Research Designs and Methods
Psych 5066	Quantitative Methods I
Psych 5067	Quantitative Methods II

Department of Economics (L11)

L11-511: Quantitative Methods in Economics I

Study of those topics of mathematics of special usefulness in economic research. Selection and ordering of topics will vary with level of student preparation but will usually include the following: vectors, matrices, and line mappings; their manipulation and elementary properties; elementary topology; and elements of multidimensional calculus.

L11-512: Quantitative Methods in Economics II

Introduction to mathematical statistics designed to provide a background for the study of econometrics. Selection of topics will usually include: probability; and introduction to distribution theory, including limiting distributions and distributions of quadratic terms, Bayes Theorem, and hypothesis testing.

L11-5161: Applied Econometrics

Introduction to econometrics as it is applied in microeconomics and macroeconomics (modular). Topics related to the analysis of microeconomic data include maximum likelihood estimation and hypothesis testing; cross-section and panel data linear models, and robust inference; models for discrete choice; truncation, censoring, and sample selection models; and models for event counts and duration data. Topics related to the analysis of macroeconomic data include basic linear and nonlinear time series models; practical issues with likelihood-based inference; forecasting; structural identification based on timing restrictions and heteroskedasticity; and computational methods for hypothesis testing and model comparison. Prerequisite: Econ 512.

Department of Electrical and Systems Engineering (E35)

E35-503: Operations Research

Linear programming: problems, examples, properties of feasible solutions, simplex algorithm, properties of optimal solutions, duality, sensitivity analysis, economic interpretation, applications, interior point methods, large-scale programs/decomposition. Integer programming: problem, models, properties, branch and bound, intelligent methodologies, cutting planes relaxation methods, applications. Network problems: transportation, trans-shipment, network flows, and simplex, out-of-kilter algorithm, shortest path problems, minimum cost network flows, spanning tree algorithms. Dynamic programming framework: examples, principle of optimality, applications, continuous state space problems, dynamic programming under uncertainty, Markov decision processes.

E35-520: Probability and Stochastic Processes I

Review of probability theory, models for random signals and noise, calculus of random processes, noise in linear and nonlinear systems, representation of random signals by sampling, and orthonormal expansions. Poisson, Gaussian, and Markov processes as models for engineering problems. Prerequisite:

ESE 326.

E35-544: Optimization and Optimal Control

Constrained and unconstrained optimization theory. Continuous-time as well as discrete-time optimal control theory. Time-optimal control, bangbang controls, and the structure of the reachable set for linear problems. Dynamic programming, the Pontryagin maximum principle, the Hamiltonian-Jacobi-Bellman equation, and the Riccati partial differential equation. Existence of classical and viscosity solutions. Application to time

optimal control, regulator problems, calculus of variations, optimal filtering, and specific problems of engineering interest. Prerequisites: ESE 551, ESE 552.

Department of Psychology (L33)

L33-5011: Research Designs and Methods

This course provides graduate students with a broad-based exposure to conceptual and practical issues in planning, designing, executing, and evaluating research in the behavioral sciences. Topics include reliability and validity, experimental design, quasi-experimental design, and single-case research. Prerequisites: Psych 5066 and Psych 5067, or equivalent.

L33-5066: Quantitative Methods I

Introduction to the theoretical concepts underlying quantitative methods in psychology. Topics include set theory, probability theory including the basic probability density functions and their cumulative distributions, joint events and stochastic independence, sampling theory and sampling distributions (including the binomial, normal, t, chi-square, and F distributions), parameter estimation, interval estimation, the t-test, hypothesis testing, power, and some nonparametric statistics. Prerequisite: Introductory Statistics and Graduate standing.

L33-5067: Quantitative Methods II

Continuation of Psych 5066. Introduction to multiple regression/correlation analysis. Topics include bivariate and multiple correlation and regression, representation of nominal or qualitative variables, power, and orthogonal polynomials, interactions, analysis of covariance, and repeated measures design. Prerequisite: Psych 5066

Olin Business School Ph.D. Courses

All Area Required Course:

B53-660: Seminar in Presentation Skills (3rd-year students)

The goal of this course is to teach students the basic principles of effective research communication sufficiently early in the program so that they have multiple opportunities to practice and hone their skills. The learning objectives are as follows: 1) Demonstrate knowledge of how to organize thoughts and write research papers effectively. 2) Demonstrate the ability to design effective presentation decks for seminars and conference presentations. 3) Improve the critical thinking that underlies research before, during, and after its completion.

Students are also required to take one additional communication course. Options are below. Substitutions are subject to approval.

U21 233 Improvisation

Course Description: This course introduces students to the fundamentals of improvisation. Students are provided with the tools and techniques to develop their artistic voice, both individually and within an ensemble, through various theatre games, exercises, and techniques. Students will build self-confidence, develop creativity, hone presentation skills, and have fun through working collaboratively in an ensemble. Both actors and non-actors are encouraged to take this class. This course will count toward major in Dance for day students.

L15 Public Speaking: Embodied Communication

Course Description: The ability to speak well and to communicate effectively in the public forum is an essential skill for all students. This course aims to offer a comprehensive and wide-ranging approach to developing the skills of the contemporary speaker. While acknowledging and utilizing traditional approaches to public speaking, this course will expand its reach to include applicable techniques from the world of the Performing Arts -- especially theatre and dance. The course does not intend to train the student as a dancer or actor, but it maintains that the successful speaker would do well to harness some of the transferable skill sets from these disciplines. The speaker, like the performer, must stand before an audience with an objective to communicate something well. Both should be dedicated advocates for the message. They share the common ground of requiring a strong voice for a sure delivery of the material, and an expressive physicality willing to fully embody and serve the message.

U48 2111 Intro to Public Speaking

Course Description: Public speaking is a skill essential for success in most professional careers. The focus of this class is to develop the basic ability and confidence necessary to speak effectively in public. The presentation skills we will work on are proper diction, projection, breath control, effective use of the voice and body, writing to be heard not read, oral critiques, and informative and persuasive speaking. Critical listening and group work will also be emphasized.

Accounting (B50)

B50-662: Seminar in Accounting Research I

B50-663: Seminar in Accounting Research II

B50-664 Doctoral Seminar in Financial Accounting

The goal of this course is to develop the ability to conduct empirical research on (1) the role of accounting information in security valuation, (2) the role of accounting in the firm (i.e., contracting). In doing so, we will develop an understanding of the economic, finance, and accounting theory that underlies empirical accounting research. As we go through papers in this class we will focus on identifying and understanding three critical elements of each study: (1) the research question, (2) the motivation, and (3) the research design. An author must describe the incremental contribution to the literature to motivate his paper. Therefore, we will also build an understanding of the major results in the literature.

B50-665: Applied Empirical Research in Accounting

The goal of this course is to develop the ability to conduct empirical research on (1) the role of accounting information in security valuation: and (2) the role of accounting in the firm (i.e., contracting). In doing so, we will develop an understanding of the economic, finance, and accounting theory that underlies empirical accounting research. As we go through each study in this class, we will focus on identifying and understanding three critical elements of each study: (1) the research question, (2) the motivation, and (3) the research design. An author must describe the incremental contribution to the literature to motivate his or her paper. Therefore, we will also build an understanding of the major results in the literature.

B50-668: Independent Study in Accounting: Internship must be arranged by the student and approved by the advising faculty member. An outline of objectives must be submitted to the Doctoral Programs Office prior to enrollment. Credit, variable.

B50-669: Directed Readings in Accounting

A program of readings developed by and with the approval of one or more members of the Accounting faculty. Approval of the director of doctoral programs is also required. Credit, variable.

Finance (B52)

B52-652: Introduction to Asset Pricing

This the first 6-week introduction course to the standard asset pricing theory's aspects of financial economics. The intended audience is first- and second-year Ph.D. students in Finance and related fields (Economics, Accounting, etc). The book ``Asset Pricing" (Revised Edition) by John Cochrane is the basic reference of this class. However, there are several text books relevant to this class, all are optional. Taking lecture notes, reading few selected papers, and doing assignments will cover core materials intended for this class. All papers in the reading sections can be downloaded (free) via Wash U network.

B52-655: Introduction to Corporate Finance

The course objective is to introduce doctoral students to corporate finance theory. The goal of the class is to enhance your skills in developing and understanding corporate finance models, providing the foundations for theoretical research as well as theoretically grounded empirical research in the field.

B52-653: Advanced Asset Pricing

The level is aimed to be advanced, at the level of contemporary working paper and recently published papers. The class has two main components. For each topic, the instructor will cover in details some basic/foundational but recent papers to provide basic understandings of why models are set up that way for the topic, and solution techniques standard to that topics. Then students summarize (in form of a presentation, with some technical details) the key results of other advanced papers on the same topic.

B52-654: Empirical Methods in Asset Pricing

This course provides some of the common methodologies for testing various asset pricing models, and some of the recent research on empirical asset pricing.

B52-615A/B: Research in Finance I/II

The finance group has a very active seminar series that bring about 25 scholars to Olin each year (including job market candidates). The "Research in Finance" course meets once a week for 45 minutes prior to the seminar. The students are asked to read the seminar paper in advance and be ready to discuss different aspects of the paper. Additionally, one student is designated each week as the presenter of the paper. This student presents the questions, methodology, and results in the paper. The presenting student also discusses the main problems that he or she sees in the paper as well as ideas for further research. Following or during the presentation, the class will discuss these different aspects of the paper. Students write and submit a critical report on the paper under consideration, including ideas for further research. The report is graded by the instructor.

B52-651: Topics in Finance

Visiting faculty will teach specialized courses in finance based on the courses they teach in their home university. The faculty will be selected based on their research interest and the extent to which their course offering complements finance department Ph.D. courses. The course will be 1.5 credit hours and will have 18 contact hours. The class sessions may be offered in a condensed manner.

B52-642: Advanced Continuous Time Theory

Covers advanced dynamic asset pricing and portfolio selection in continuous time. Students are required to read some of the classical papers as well as the most recent developments in the field. Lectures emphasize the concepts and technical tools needed to understand these articles and to initiate frontier research in this field.

B52-643: Information Economics & Corporate Finance Theory

This is a rigorous seminar in individual and corporate economic behavior under conditions of asymmetric information, with application to corporate finance, financial intermediation, and accounting. Its purpose is to cover many of the landmark modern developments in information economics as well as some "applications-oriented" papers. The principal objectives are to (i) inform students about the major advances made in the areas mentioned above and (ii) equip them with the analytical tools needed to do theoretical research in the area, including applications in financial economics.

B52-644: Financial Economics

The course consists of two parts: basic theory and empirical tests. Topics include utility maximization, stochastic dominance, mean-variance analysis, fund separation, pricing theory, fundamental theorem of asset pricing, and basic continuous-time mathematics.

B52-648: Independent Study in Finance

Internship must be arranged by the student and approved by the advising faculty member. An outline of objectives must be submitted to the Ph.D. Office prior to enrollment. Credit, variable.

B52-649 Directed Readings in Finance

A program of readings developed by and with the approval of one or more members of the Finance faculty. Prerequisite, approval of the Director of the Ph.D. program. Credit, variable.

B52-650: Topics in Emerging Markets Finance

This course will discuss the area of emerging markets finance (EMF). The course will highlight the area's importance for finance research, discuss existing empirical evidence, and highlight some important open questions for future research. This course is designed for Ph.D. students who are looking for research topics and the empirical tools necessary to implement them. Apart from an introduction to the area, six main topics will be covered: finance and growth, determinants of financial development, globalization, business groups, stealing and corruption, and raising capital.

Strategy/Management (B53)

B53-603: Seminar in Strategy and Organization

This course focuses on theoretical and empirical work regarding the economics of organizations defined very broadly. Rather than focusing solely on organizational economics as it has evolved in the economics literature, this course emphasizes complementary and competing theoretical and empirical work in the organization theory and strategy literatures. The course also seeks to interpret and analyze observed organizational forms, trends, and choices using insights from the theories we examine.

B53-604: Strategy Management of Innovation & Technology

This seminar reviews and discusses research on the strategic management of innovation and technology. The course has three goals: bring students to the knowledge frontier of research in the management of innovation in technology, develop students' ability to formulate research questions and propose feasible research methodologies, and develop students' ability to present research papers.

B53-606: Economics of the Organization

This course seminar reviews and discusses research in organizational economics, the field that overlaps many other fields in economics, such as industrial organization, contract theory, labor economics, corporate finance, etc. Students are expected to learn how to build a simple model to explain facts and how to formulate research questions based on implications from models.

B53-650: Seminar in Entrepreneurship

This course is a survey of topics that bear on entrepreneurship. The course is divided roughly into two sections; immersion (entrepreneurship statistics, history of entrepreneurship, entrepreneur biographies), and phenomena. In addition to becoming proficient in entrepreneurship theory, you will develop skills as discussants. Besides being a practical skill that will lead to conference invitations, preparing a good discussion will develop critical thinking.

B53-648: Independent Study in Strategy

Internship must be arranged by the student and approved by the advising faculty member. An outline of objectives must be submitted to the Ph.D. Office prior to enrollment. Credit, variable.

B53-629: Directed Readings in Strategy

A program of readings developed by and with the approval of one or more members of the Strategy faculty. Prerequisite, approval of the Director of the Ph.D. program. Credit, variable

Economics (B54)

B54-610: Microeconomics I

The first of a two-semester graduate sequence in microeconomic theory, the courses cover the determination of relative prices and quantities exchanged of final products and factors of production. The first semester considers production and costs, supply of output and demand for inputs, demands for final products, market organization, time, and capital.

B54-611-504: Microeconomics II

The second of a two-semester graduate sequence in microeconomic theory. The second semester considers the further development of individual consumer behavior, aggregated demand, general equilibrium analysis, Leontief models, consumer surplus analysis, social choice, and expected utility analysis.

B54-625: Industrial Organization I

Starting from the 1970s, an increasing number of economic theorists have become interested in Industrial Organization. Non-cooperative game theory became the standard tool to analyze strategic conflicts, and it lent itself naturally to the analysis of industrial organization topics (until then, the tools of general equilibrium analysis were not ideal to tackle the same issues). The course aims to give you a concise but solid background of the classical results

in IO theory, and then to highlight some very recent contributions to the same literature. We will give particular attention to the topics that are complementary to empirical analysis.

B54-626: Industrial Organization II

The course focuses on research methods in empirical industrial organization. Every week, we will cover 1-2 recent empirical papers centered on a particular area of Industrial Organization. We will discuss in detail the research question, relevant theories, sources of identification, data, estimation techniques, and economic significance. There is no textbook.

B54-661: Analysis of Time Series Data

B54-670: Seminar in Econometrics

The purpose of this course is to provide a comprehensive, wide-ranging exposure to Bayesian inferential methods. Assuming little to no prior knowledge of Bayesian statistics, the course develops the Bayesian way of thinking about model development (with emphasis on hierarchical model formulations), estimation, model comparison, and prediction. The needed expertise in Markov chain Monte Carlo (MCMC) methods is also developed. All the computations are illustrated in R, which is also taught in the course. The ideas are illustrated with models that arise in many different fields, for example, models dealing with binary and ordinal outcomes, panel data, change-points, and data from randomized experiments with imperfect compliance. Both parametric and non-parametric models are discussed. Students are expected to complete an individual (non-group) project in which the techniques developed in the course are applied to a problem of research importance. The course should be valuable for a variety of graduate students, including those with primary interest in economics, statistics, econometrics, finance, marketing, operations, accounting, political science, and biostatistics.

B54-648: Independent Study in Economics

Internship must be arranged by the student and approved by the advising faculty member. An outline of objectives must be submitted to the Doctoral Programs Office prior to enrollment. Credit, variable.

B54-699: Directed Readings in Managerial Economics

A program of readings developed by and with the approval of one or more members of the Economics faculty. Approval of the director of doctoral programs is also required. Credit, variable.

Marketing (B55)

B55-602: Consumer Behavior I

Consumer Behavior I is the first half of a two-part Ph.D. level course on consumer behavior. However, either part I or part II can be taken independently of the other part. This course will essentially cover the first half of topics from the Handbook of Consumer Psychology.

B55-602: Consumer Behavior II

Consumer Behavior II is the second half of a two-part Ph.D. level course on consumer behavior. However, either part I or part II can be taken independently of the other part. This course will essentially cover the second half of topics from the Handbook of Consumer Psychology.

B55-670/671: Seminar in Marketing Management

This course is an advanced seminar of doctoral-level standing. The course is aimed at students pursuing a degree in business, economics, or other disciplines interested in learning about the state of the art in analytical and

empirical models in marketing. The objective of this course is to study analytical and empirical models and methods used in marketing to understand and predict the behavior of market participants, viz., consumers, and firms and to examine generalizations of such behaviors from a number of studies. The topical coverage in this seminar will vary from year to year.

B55-673: Analytical Modeling in Marketing

This Ph.D. level seminar provides an overview of analytical models in marketing and economics as well as an in-depth discussion of game theory topics frequently used in economics and business literature. The seminar consists roughly of two parts. The objective of the first part is to achieve understanding, justification, and intuition for the commonly-used equilibrium concepts and ideas in game theory, such as Nash, Bayesian Nash, and Markov-perfect equilibria, and sub-game perfection. In this part, the course will go beyond the standard game theory treatment in Micro II to understand the usual critique and justification of the use of game theory in business applications and to better understand the equilibrium concepts used in applied economics and business literature. The objective of the second part is to study how these concepts have been used in the current business and economics literature. The specific areas covered in this part will vary from course to course to take into account the interests of students and to avoid overlap, but complement recently offered courses. Likewise, to avoid overlap, the emphasis placed on the two parts of the course will vary from year to year. The topics and methodology covered in this seminar should be of interest to doctoral students in Business, Economics, and Political Science.

B55-674: Judgment and Decision Making

This class provides students an introductory overview of judgment and decision making (JDM, aka Behavioral Decision Making) research, with a

consumer behavior slant. The field of JDM is heavily grounded by the disciplines of economics, psychology, and statistics, and now has major contributions from most business domains as well (organizational behavior, behavioral accounting, behavioral finance, marketing, consumer behavior, etc.). We will look at some of the classic articles and theories that started the movement and current work that has updated these theories.

B55-675: Empirical Methods in Structural Modeling

This course will deal with structural econometric models of consumer and firm behavior. Each lecture will discuss modeling and estimation issues pertaining to one stream of research in this area. The focus of the course will be mainly on recent "state-of-the-art" papers, although the perspective of older, "classic" papers will be provided as and when appropriate.

B55 600A Experimental and Behavioral Research Methods

This half-semester research methods course will focus on experimental design, causal inference and data reliability, Students will gain a strong background in current experimental methods and data integrity issues, and will have opportunities to practice designing experiments and experimental stimuli. Students will also have the opportunity to evaluate published experimental research. The course will be relevant to all Ph.D. students whose research incorporates experiments, including but not limited to, students in Marketing, Organizational Behavior, Strategy, Psychology, and Social Work.

B55-678: Independent Study in Marketing

Internships must be arranged by the student and approved by the advising faculty member. An outline of objectives must be submitted to the Doctoral Programs Office prior to enrollment. Credit, variable.

B55-679: Directed Readings in Marketing

A program of readings developed by and with the approval of one or more members of the Marketing faculty. Approval of the director of doctoral programs is also required. Credit, variable.

Organizational Behavior (B56)

B56-620: Seminar in Organizational Behavior I

The course surveys classic and contemporary research that addresses the design and function of organizations using methods of applied behavioral science. Examines multiple theoretical perspectives that researchers and other students of organizations have used to explain, predict, and control the behavior of individuals in organizations. Provides a familiarity with important theories and findings that comprise the field of organizational behavior. Examines how the field contributes to business education and practice.

B56-621: Seminar in Organizational Behavior II

Emotion has become one of the most popular and popularized areas within organizational scholarship. This seminar attempts to review the wide and often disjointed literature on emotion in organizations. Each session is organized around pieces of the emotion process. Students will read and present articles to the class, be active participants in discussion, and write a research proposal that integrates the role of emotion into a topic of their own research interest.

B56-624: Leadership and Social Exchange in Organizational Behavior

This course focuses primarily on research on trust in organizations. Trust intersects with wide variety of topics in the field of organizational behavior such as leadership, teams, negotiations, justice, and networks. Over the last

decade the concept has gotten increasing attention in organizational behavior and in a range of related fields.

B56-626: Negotiations and Conflict Management

This course will critically examine current theory and empirical research on social conflict, negotiation, and bargaining. Our objective will be to prepare participants in the seminar to become effective researchers in this field of study. Classes will be student-driven with a focus on discussion and critical debate. All students will be expected to contribute actively to the discussions during each class period. The final deliverable for the course will be a research project on some significant aspect of conflict and negotiation.

B56-627: Early Doctoral Pro-Seminar in Organizational Behavior

The early-stage doctoral pro-seminar is a unique course that attempts from the first semester of the Ph.D. program in Organizational Behavior to: 1) Encourage students to start thinking critically about the work of others, 2) Encourage students to start proposing their own new ideas, and 3) Expose students to the research of the department's faculty members in order to facilitate the development of working relationships. There will be one session of 1.75 hours scheduled with each research faculty member in the OB group (currently this number is 9), plus an introductory session with the faculty coordinator.

(NEW COURSE FOR FALL 2018) Introduction to Organizational Field Research

The purpose of this course is to immerse students in the discipline and practice of research on organizations "in the wild." Through readings, class discussions, and—most importantly—student experiences embedded within an organization throughout the semester. Students will use reflective memos and feedback from faculty and classmates to develop an initial mental model of what it means to develop and advance research projects that are grounded both in theory and in how real organizations operate today.

B66-630 Organizational Research Methods

This course is an introduction to the process and methods of conducting and publishing research on organizations. This is done through readings, class discussions and exercises as well as through writing and reviewing. This course covers a broad range of topics and specific research methods.

B56-628: Independent Study in Organizational Behavior

Internship must be arranged by the student and approved by the advising faculty member. An outline of objectives must be submitted to the Doctoral Programs Office prior to enrollment. Credit, variable.

B56-629: Directed Readings in Organizational Behavior

A program of readings developed by and with the approval of one or more members of the Organizational Behavior faculty. Approval of the director of doctoral programs is also required. Credit, variable.

B56-640: Doctoral Seminar on Social Hierarchy in OB

The purpose of this seminar is to examine the implications of social hierarchy, or stratification in power and status within a social group, for phenomena of central interest in the field of organizational behavior. We will examine the implications of social hierarchy for topics such as conflict, negotiation, learning, creativity, interpersonal perception, emotion, diversity, and leadership. The goal of the seminar will be to review foundational theories, critically evaluate recent and emerging research, and identify areas of promise for future research on these and related topics.

Operations and Manufacturing Management (B57)

B57-652: Theory and Research Methods in Inventory

The course covers theories and techniques for inventory management. We introduce discrete and continuous time models with finite and infinite planning horizon, and expose students to computational techniques for solving dynamic inventory models.

B57-653: Stochastic Models for Production and Service Systems

The course will focus on stochastic processes course with an emphasis on queueing (especially as applied to operations models) and probabilistic reasoning. The approach will be non-measure theoretic but otherwise rigorous. Students are assumed to already have a working knowledge of probability and stochastic processes. The course will contain a sampling of some of the most important stochastic proof techniques for operations. Specific topics include Markov chain analysis, queueing theory, sample path arguments, and limit theorems.

The course will also cover the application of stochastic processes and equilibrium analysis to service operations systems. Classical models covered from the textbook will be studied. Topics include observable queues, unobservable queues, and competition among servers. Students will also be exposed to recent research development by reading and presenting research papers on these topics.

B57-654: Inventory & Supply Chain Mgmt. Theory & Research

This course will provide an in-depth study of classical models for inventory management including single-echelon and multi-echelon inventory systems, and their extensions. We will study both deterministic and stochastic inventory models, and focus on establishing structural results for optimal policies and deriving solution algorithms.

B57-655: Dynamic Programming and Option Control

The course covers the basic models and solution techniques for problems of sequential decision making under uncertainty. We introduce discrete and continues time models with finite and infinite planning horizon, and expose students to computational techniques for solving dynamic models. Applications are drawn from operations management, economics, and engineering.

B57-656: Managing Flexibility and Risk in Global Supply Chains

In this course, we present at first the modeling tools necessary in studying from a modeling perspective these issues (stochastic dynamic programming, optimal control, and basic real options tools), and then spent time on the many papers (most of them published and working papers of the last few years) that have defined and are breaking ground in this exciting research direction of global supply chain management.

B57-657: Research Topics and Engineering Themes in Supply Chain and Rev. Management

This is a doctoral course on models in operations management (mostly in supply chain management). The course covers important themes in supply chain management research, including information sharing in supply chain, supply chain contracting, application of game theory in supply chain management, operations-marketing interface, dynamic pricing, and revenue management. Upon completing this course, a student will have the necessary knowledge and tools to produce novel research in supply chain management.

B57-658: Independent Study in Operations Manufacturing and Management

Internship must be arranged by the student and approved by the advising faculty member. An outline of objectives must be submitted to the Doctoral Programs Office prior to enrollment. Credit, variable.

B57-659: Directed Readings in Operations and Manufacturing Management

A program of readings developed by and with the approval of one or more members of the OMM faculty. Approval of the director of doctoral programs is also required. Credit, variable

REGISTRATION

Doctoral students are automatically registered for their first semester of classes by the Doctoral Programs Office. No action is necessary, therefore, on the part of the student for first-semester registration. Students are responsible for their own course registration beginning their second semester.

Complete registration instructions are available in the Doctoral Programs Office. Registration for the spring semester begins in mid-November. Registration for the fall semester of year two begins in mid-April.

Drop/Add and Withdrawal

Students may drop or add a course to their registration during specified periods at the beginning of each term. The signature of a faculty member is not necessary to add or drop a class.

The following is the policy for dropping or withdrawing from a course once it has started:

 Within the first two weeks of a "mini" semester course or the first four weeks of a semester-long course, a student can drop the course by completing the online Drop/Add procedure. Courses dropped during these time periods will not appear on the student's transcript.

- In the third or fourth week of a "mini" semester course or the fifth
 week through the eighth week of a semester-long course, a student
 can withdraw from the course by completing the online Withdraw
 procedure. However, such a course remains on the student's
 transcript with the code "W."
- If a student encounters extenuating health or other circumstances
 that necessitate withdrawal from a course beyond the fourth week
 of a "mini" course or beyond the eighth week of a semester-long
 course, the student may file a petition detailing the particular
 circumstances with the university's Academic Review Committee If
 the student's petition to withdraw is approved by the Academic
 Review Committee, the course (or courses) will remain on the
 student's transcript with the code "W".

Auditing a Course

Students who wish to *audit* a course should talk with the professor of the course to determine the specific requirements for a successful/ unsuccessful audit *before* choosing this option (grade option "A" when registering for the course). The requirements vary by course and by professor. Audited courses are not considered in calculating the 36 credit hours required for program completion.

Course Waivers

Olin PhD students may obtain a waiver for any required course. Waivers are intended to allow students to avoid redundant study of subjects already mastered and advance. In order to receive a waiver, the student must submit a petition to his PhD advisor of the required course and obtain the advisor's signature, denoting approval. Students then must submit the

signed waiver form to the Doctoral Programs Office within the first two weeks of the class.

Please note that a waiver does not reduce the student's required hours to earn the doctoral degree. Moreover, it should generally be presumed that approval will be granted <u>only</u> where the student has previously completed substantially equivalent coursework during his or her prior education and/or demonstrated competency via work experience.

The PhD advisor *may* require the student to enroll in a specific substitution course. If no specific substitution course is required, the student may choose to substitute other PhD coursework for which the stated prerequisites are met. The coordinator of doctoral programs is available to assist students in finding appropriate substitute courses and to answer questions about the waiver and substitution procedures.

Coursework in Other Divisions

Twenty-four of the 36 credits required for the degree must be taken within Olin Business School. The other 12 credits may consist of either (a) approved transfer credits from an AACSB-accredited program (12-credit maximum) or (b) credits earned in approved graduate-level courses offered in other divisions of Washington University. For approval to be granted for coursework in other Washington University divisions, the course must appear on the list of approved courses available in the Doctoral Programs Office or must be reviewed for inclusion on that list.

Students are advised to consult with the Doctoral Programs Office before registering if they have any concerns about whether credits earned in a course will be applied toward the 36-credit requirement.

Independent Study and Research Internship Credits

Students desiring more in-depth exposure to an area of interest under the supervision and direction of a faculty member may seek a faculty sponsor. Typically, a student will discuss with a particular faculty member the possibility of receiving supervision for directed research or an independent study research project.

Because faculty members have a variety of commitments, a student should have an independent study project fairly well thought out prior to seeking a faculty sponsor. Projects may receive from 1.5 to 6 academic credits, but normally no more than 3 credits may be granted in any one semester.

Once a project is agreed upon between student and professor, the student must submit a petition to the Doctoral Programs Office and ask the faculty member to confirm his or her approval to the office. The petition should outline the topics to be covered, texts or other research material, methodology, and deliverables. Students must be in good academic standing to receive approval for independent study.

MASTER OF SCIENCE IN BUSINESS ADMINISTRATION

Students who seek a master of science in business administration (MSBA) degree as a terminal degree are not admitted to the doctoral program. However, as progress is made toward the Ph.D., a student who has met the requirements set out below may be awarded an MSBA in one of the areas offered for the Ph.D. degree: accounting, business economics, finance, marketing, organizational behavior, supply chain, operations, and technology, and strategy and entrepreneurship.

The requirements are:

- Two years of full-time participation in the program
- Approval of the Senior Associate Dean of Doctoral Programs or Completion of the following:
 - 36 hours of graduate-level coursework with a grade-point average of 3.00 or higher, including completion of the core

- sequence (approximately 18 credits). *Note:* Transfer credits are not applicable.
- A grade of Master's Pass or higher on the preliminary economics core exam (if applicable).
- Presentation of a research paper to area faculty.

In any semester in which a student has fulfilled all of the above requirements, the student may file to receive the MSBA degree with the Doctoral Programs Office.

DISSERTATION

A dissertation is the product of extensive research and presents an original contribution to knowledge in a given field. It documents the doctoral candidate's ability to make substantive contributions to answering a major intellectual question and to communicate research results with professional competence.

General Requirements

The dissertation must constitute an integrated, coherent work, whose parts 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 the theories, methods, and 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 coauthored chapters and articles, but the candidate must be a major contributor to the research

and writing of any such papers and must describe her or his ideas, individual efforts, and contributions to the larger work. In order 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 any co-authored work.

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, Ph.D. candidates should discuss copyright with their advisors and obtain copyright clearances from any coauthors well in advance of defending the dissertation. Written permission must be obtained in order to include articles copyrighted by others in 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 outlined here.

Proposal Defense

The purpose of the dissertation proposal is to provide evidence that the proposed dissertation will demonstrate the student's mastery of a specialized field of knowledge and capacity for original scholarly work.

At the dissertation proposal defense—which is open to all members of the regular faculty and all doctoral students—the student presents the research that has already been completed and an outline of the research that remains to be done. The student must make copies of the proposal available to the research advisory committee at least two weeks prior to the scheduled date. The faculty and doctoral students are informed of the date and location of the dissertation proposal defense a minimum of two weeks in advance.

The format of the proposal defense may vary among disciplines, but its general purpose is to provide the student the opportunity to present a detailed account of completed research, indicate a road map for what remains to be done, and receive the thesis committee's feedback on the research as well as approval that the proposal will lead to an acceptable dissertation if the student completes the research as described by the thesis committee.

There is no hard-and fast-rule regarding how much of the thesis must be completed before a proposal defense is scheduled. Some disciplines require that the thesis be more fully developed at the proposal defense than do other disciplines. A rough rule of thumb is to schedule a proposal defense before 50% of the research on the dissertation has been completed. This presumes that the student has been receiving guidance on the direction and scope of the research from the thesis committee.

Deadlines

Students are required to propose no later than the deadline of June 30 in their 4th year (that is, end of the 4th academic year on the program). Failure to propose by this deadline will result in academic probation and, if so, a letter to that effect will be sent to the student. If a signed Title, Scope and Procedure form, which signals a successful proposal defense, is not submitted to the Doctoral programs office by September 30th of the Fall semester of the 5th year, there may be additional consequences such as dismissal from the program.

Research Advisory Committee

The Research Advisory Committee consists of three tenured or tenure-track Washington University faculty members from the student's area. The

committee members sign the Notice of Title, Scope, and Procedure of Dissertation before the student begins the dissertation and serves as the first three readers for the dissertation and as members of the student's Dissertation Examination Committee.

The faculty members attending the proposal defense confer with the prospective Research Advisory Committee, which recommends to the committee chair what the student must do to produce a completed dissertation. The chair collects the committee's recommendations, ensuring that all committee members agree on the direction and approach, and submits a written document to the Doctoral Programs Office and the student within two weeks of the proposal defense.

Title, Scope, and Procedure of Dissertation Form

If the recommendation is positive, the Research Advisory Committee formally approves the proposal by signing the Notice of Title, Scope, and Procedure of Dissertation form. The form can be obtained from the Doctoral Programs Office.

The project's "scope," as the student has described on the form, defines its limits—what the student intends to cover and what will not be covered. The "procedure" describes the manner in which the student intends to conduct the research. By defining the scope and procedure of the dissertation, the student provides an initial outline or model for use in researching the topic.

It is understood that the scope, procedure, and even the title of the dissertation may change during the course of the research. Major changes to the committee, such as a new thesis advisor from outside the committee, or a significant change of topic may require a new Title, Scope, and Procedure form.

Oral Dissertation Defense

The dissertation <u>must</u> be approved by the Research Advisory Committee before the defense can be formally scheduled and announced. Approval ensures that the dissertation is developed adequately and ready to be brought to defense.

Preliminary Paperwork

There are four forms that the student must file well before the completion of the dissertation and the scheduling of the dissertation examination:

- Title, Scope, and Procedure form—The Title, Scope, and Procedure form (titled "Notice of Title, Scope, and Procedure of Dissertation") is to be filed with the Program Office as soon as it is signed off by the faculty.
- Intent to Graduate—Candidates for a degree must file their "Intent to Graduate" for the semester in which they intend to graduate. You may complete this after logging onto WebSTAC and clicking on "Intent to Graduate" from the menu. If you are unable to access this, contact the Office of Student Records. Please note that, if you do not finish by the time you had originally stated in your first Intent to Graduate form, you must file a subsequent intent for the semester when you now intend to complete your work.
- Dissertation Examination Committee approval—Prior to scheduling the dissertation defense, the candidate must submit a "Dissertation Defense Committee" form for approval by the Director of Doctoral Programs.
- Satisfaction of Teaching Requirements—Olin PhD students must meet department teaching requirements, including demonstrating competency in teaching at both a basic and advanced level and submit documentation.

Dissertation Examination Committee

The Dissertation Examination Committee is composed of the student's Research Advisory Committee and at least two additional faculty members. Of the five faculty members, four must be tenured or tenure-track (three of the five must come from the student's degree program; at least one of the five must not).

In most cases, the chair of the student's Research Advisory Committee serves as the chair of the student's Dissertation Examination Committee. Approval of the dissertation by the Research Advisory Committee is necessary to bring it to the defense.

Dissertation Defense

The defense is open to faculty and doctoral students, who may attend as observers rather than participants. Typically, the Dissertation Examination Committee solicits evaluations from the faculty attending the defense before making a decision as to the student's success in defending the dissertation. However, only the Dissertation Examination Committee is permitted to vote.

At least two weeks prior to the defense, the regular faculty is informed of the date and location of the defense and the composition of the Dissertation Examination Committee. Students are required to submit their written thesis to their committee members at least 30 days before the scheduled date of the defense. The committee will respond at least 2 weeks before the defense with substantial requested changes. These changes will be expected to be complete and resubmitted to the committee before the defense.

A typical defense follows these procedures:

- Presentation by the candidate lasting about one hour. Candidates are not expected to repeat the detail presented in the workshop.
- Committee chair asks for questions from non-committee faculty who are present.

- Chair asks for questions from the Dissertation Examination Committee.
- Chair asks for questions from the Research Advisory Committee.
- Chair excuses all attendees except the Dissertation Examination Committee, which deliberates and makes a determination on the success of the defense.
- Upon approval of the defense, all members of this committee, as well as the chair of the department or program, sign the Examination Approval Form.

DOCTORAL DISSERTATION SUBMISSION:

After the defense, the student must submit an electronic copy of the dissertation online to the university. The submission website requires students to choose among publishing and copyrighting services offered by ProQuest 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 program office 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 school registrar or the appropriate record custodian. Students who defend their dissertations successfully have not completed their PhD requirements; they finish earning their degree only when their dissertation submission has been accepted by the program office.

GRADUATION INFORMATION

University commencement ceremonies are held in May and mark the end of the academic year. Advanced degrees, however, are awarded three times each year: in August, December, and May. The deadlines for completing all degree requirements, including the electronic submission of the dissertation, in time to receive summer, fall, or spring degrees, are

listed in the academic calendar. A student who has completed all requirements for the Ph.D. and needs certification of this fact before the date of the award may secure a letter of certification from the Doctoral Programs Office; a written or emailed request is required.

Diplomas are mailed to the student's post-graduation address. Graduating students should update this in WebSTAC at the time they file their intent to graduate.

Official transcripts are issued by Student Records at no charge, on request by the student. Information regarding these services is available on the Student Records website.

GENERAL POLICIES AND PROCEDURES

Transfer Credit

As many as 12 units of transfer credit may be accepted toward the Olin Ph.D. degree requirements provided that:

- The credits are for graduate-level courses that the student took while a doctoral student at a business school program accredited by the Association to Advance Collegiate Schools of Business (AACSB) and are relevant to the Olin Ph.D. degree.
- The relevant area faculty, in consultation with the Olin Doctoral Programs Office, has determined (using course syllabi and other information) that the coursework taken in the other business school program is comparable in content (for required courses) to required courses offered in the Olin doctoral program or acceptable in quality (for elective courses).
- A grade of "B" or higher was achieved in the coursework for which transfer credit is requested.

In addition, credits petitioned for transfer must not have been used to satisfy the requirements of another degree. Credits for courses in which the student received no letter grade or credits earned through either correspondence courses or courses or experiences offered under the auspices of proprietary schools, business or industrial training programs, or schools conducted by federal agencies such as the Department of Defense, are not considered for transfer.

Students seeking acceptance of transfer credit must complete and submit a Transfer Credit Evaluation Form along with a copy of the official transcript from the institution where the credits were earned, a description of and syllabus for each course for which transfer credits are being requested, and course equivalency information.

Approved transfer credits are included on the student's official transcript as credits accepted in transfer. Letter grades from transfer credits are not reflected on the transcript, nor are they considered in the determination of grade-point average.

Leave of Absence

Leaves of absence are generally granted in the event of a prolonged illness or other personal circumstances. Students who find it necessary to take a leave of absence from the program should first talk to their faculty advisor and then make an appointment with the Director of Doctoral Programs.

New Child Leave

Full-time PhD students may request a New Child Leave to assume care for a new child. They should maintain their full-time student status. Students on New Child Leave are not expected to participate in mentored teaching or research experience for up to 60 calendar days

while they receive their current stipend support. Additional time off without receiving a stipend for up to a full semester may be approved by the Senior Associate Dean of Doctoral Programs.

New Child Leave does not affect the student's full-time status and will not appear on the student's official transcript. New Child Leave must be taken within the first year after the child's birth or adoption. Student should contact the program office to request a New Child Leave.

Human Subject Research

Students who plan to conduct research involving human subjects must understand and follow university protocols and guidelines set by the Human Research Protection Office. Guidelines can be found at: https://hrpo.wustl.edu/.

International Students

The ability to communicate fluently in English is essential for progress and success in the Ph.D. program. Communication is the vehicle for expressing knowledge and ideas in both written and verbal forms. All students who do not regard their mastery of English as strong are encouraged to enroll in English Language Program courses to improve their proficiency. More information on ELP courses can be found at: https://oiss.wustl.edu/english-language-programs/

Placement

Students begin to seek employment during the recruiting season after the dissertation proposal has been accepted and should discuss their job search plans with their advisor. Although job search strategies will vary by discipline, it is never too early for the student to begin developing a network of individuals with the student's discipline who have similar research interests.

A limited amount of funding is available from the Doctoral Programs Office to support students' job search activities. Interested students should contact the Doctoral Programs Office for information on how to apply for this funding.

TRAVEL REIMBURSEMENT POLICY

Olin Business School is committed to supporting PhD students in various travel related to their academic progression. Students are encouraged to attend relevant conferences or consortiums when possible.

Eligibility

PhD students in good standing are eligible to request travel approval in accordance with the policy below. Amounts are per fiscal year (July 1-June 30th). Program year is the first day of the fall semester.

For fiscal year 2024, 1st and 2nd year students may request approval for up to \$500 to attend an academic conference or workshop. Starting in fiscal year 2025, eligibility for travel funding will begin in the second year of the program and 2nd year students will be eligible to request approval for up to \$500 to attend an academic conference or workshop, and up to \$1250 if presenting a paper.

3rd and 4th year students may request approval for up to \$500 to attend an academic conference or workshop. If presenting a paper, students may request up to \$1250.

5th and 6th year students may request approval for up to \$1250 for travel to present at an academic conference or workshop.

Students in years 3-5 who are approved for one travel request are eligible to submit a second request if they will present a paper at a premier academic conference. Premier conferences are determined by the academic area and reflect the top three in prestige.

Students in their job market year may request approval to attend a second academic conference without the premier status requirement. They may submit a third travel request if they have been approved for two academic conferences, including a premier conference, and have the opportunity to present a paper at a third academic conference during the fiscal year. For areas with an early job market timeline, students may request job market travel status in year four with area faculty coordinator support.

Faculty STAR funds and funds from research center budgets should not be used to fund student travel unless a student has been approved for the maximum of eligible program funds and the paper to be presented is co-authored with the faculty member. In these cases, the use of STAR funds is at the discretion of the faculty.

Application & Approval Process

At least one month prior, the student must submit a Travel Approval Request form that includes estimations of all expenses that will be incurred. The request should include approval from the area faculty coordinator serving as the area representative on the doctoral committee. The student should receive approval from the program office before leaving for a trip or paying for any trip-related expenses, and if the student has not heard back from the program office before the travel, it is the student's responsibility to follow up and ensure that approval is received before the travel. If a Travel Approval Request form is not submitted and approved prior to travel, the expenses incurred may not be eligible for reimbursement. Students will receive a decision in writing from the program office.

The maximum travel reimbursement limit per trip is \$1250.00 for the 2023-2024 academic year. Any expenses that a student incurs over the approved amount are the responsibility of the student.

With regard to student travel, the goal of the PhD program is to support as much eligible student travel as possible within the funds budgeted for each year. In order to help stretch limited funds as far as possible, students are expected to travel economically by carefully researching all available travel, hotel, and local transportation options in advance of their trip. As always, when you travel as a WU student, you are representing your program and school.

Students are responsible for reviewing Olin Business School's travel policies, forms, and documentation requirements on the website: Accounting Policy Resources & Forms | Finance & Accounting Services | Washington University in St. Louis (wustl.edu).

FINANCIAL SUPPORT

Internal Funding

Internal funding is available to Olin doctoral students in the form of tuition remission and stipends/fellowships.

Tuition Remission

The Ph.D. program pays all tuition for courses directly related to the student's degree, except for courses taken through University College, unless by approval of the Doctoral Programs Office. The program also pays the mandatory student health fee. Each semester, the tuition remission is applied against the student's bill after the first deadline for dropping courses (approximately three weeks after courses for the semester begins)

Stipends/Fellowships

Olin Business School provides a stipend to all Ph.D. students who are in good academic standing throughout the duration of their academic

coursework. All financial awards are effective from July 1 through June 30.

Olin Ph.D. Research Grant

Olin PhD students can apply for up to \$500 to help support research projects. This funding can be used for things like purchasing databases or providing honorariums for projects involving human research participants. Students may only be awarded once per year, and the applications must be approved and signed by your area coordinator. The PhD Office will award up to 10 students per year. Applications forms may be requested from the program office.

Paid Employment at Olin

Students in year two or above in good standing are eligible to accept paid employment opportunities within the school. Paid employment opportunities are typically as a research or teaching assistant. Mentored teaching experiences and mentored research assistantships are not considered employment and are not paid. For paid employment opportunities, Olin HR manages the hiring process including determining the hourly rate and method of reporting hours worked. Students must be hired through Olin HR in advance of performing any work. To prioritize their coursework and assimilation to the program, first year students are not eligible for paid employment opportunities.

External Funding

Working outside the school and external grants and fellowships may be other sources of funding for students.

Teaching Outside the School

Students are encouraged to limit their teaching and esearch experiences to areas within Olin Business School and, more broadly, Washington University. Knowledge gained from interacting with faculty on research and teaching projects enhances the formal curriculum and, ultimately, the caliber of the student's learning during the Ph.D. program. Olin doctoral students are therefore required to obtain explicit permission from their area coordinators and the Doctoral Programs Office to teach outside of the university during the first five years, since such assignments may distract the students from acquiring the knowledge and skills to successfully complete the Ph.D. program.

External Grants and Fellowships

Olin encourages all students to apply for external grants and fellowships. Students should regularly read the brochures and applications that the Doctoral Programs Office posts on bulletin boards in doctoral suites. Students are also encouraged to speak with their advisors or the grant development specialist regarding grants and fellowships in their specific fields. Most awards are directed to individuals who have prepared a dissertation proposal or pre-proposal; with only a limited number of awards available to students at the pre-candidacy level.

Because external grants are awarded in a variety of ways, it is not possible to set a standard regarding how the Olin funding available to a student receiving an external award will be adjusted. However, the program is committed to ensuring that there is a financial advantage for Ph.D. students who receive such awards.

Child Day Care Subsidy

The purpose of the Child Day Care Subsidy is to help financially stressed graduate student families meet the costs of child day care tuition at licensed facilities while they pursue PhD degrees.

The amount of Child Day Care Subsidy awarded to eligible applicants is based on their financial need, the number of children they have enrolled

in licensed child day care facilities, their child day care expenses, and available funding. Eligible students can expect the following:

- For one child, the maximum award is \$3,550 per semester
- For two children, the maximum award is \$4,550 per semester
- For three or more children, the maximum award is \$5,550 per semester

The subsidy amount cannot exceed the cost of the licensed day care facility. Students should contact the program office for application information.

STUDENT RESOURCES AT OLIN

The Al & Ruth Kopolow Business Library

The Al and Ruth Kopolow Business Library is located in Simon Hall, second floor. Its resources include subscriptions to more than 55 databases, including Bloomberg, S&P, Capital IQ, IBISWorld, and Morningstar. Other online resources contain articles, market studies, time-series data, etc.

An expert team is ready to assist online or in person. To search the full extent of library resources and services, visit http://library.wustl.edu/units/business/

Classrooms, Study Rooms, and Conference Rooms

Required and elective courses offered by Olin Business School are taught in Simon Hall, Bauer, or Knight Hall. Small rooms for students to meet in study groups are available, as are several conference rooms. To reserve a

Olin Business School

classroom or conference room, email Sunni Sun, doctoral programs

coordinator, at shengxin@wustl.edu.

Computing Resources

Olin Business School provides various computing resources, which help to

create a more productive work environment for students. All students are eligible for network accounts that include an email address, secured

network storage for classwork, a personal website, and remote access to

the Olin network. Students can log on and access these resources from

computers throughout Olin or from their own laptop at one of several

network ports in Simon Hall or via wireless technology.

More information about computer labs and printing can be found on

campus groups: http://olinwustl.campusgroups.com/ois/welcome/.

Computing Support/Help Desk

Washington University Information Technology (WUIT) provides the university community with technology that supports and advances the

University's missions. For general support, initiate a support or service

request you may call, email, or make a web request.

Call: 314-933-3333

Email: ithelp@wustl.edu

Web Request: https://wusm.service-now.com/

Student Email Accounts

One of the primary ways that the administration communicates with

students is via email. New Ph.D. students receive their email accounts

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after they have been enrolled for their first semester and can set them up through WebSTAC.

UNIVERSITY RESOURCES AND SERVICES

Washington University Libraries

The website for the WU libraries offers more full-text resources and databases for you to consult plus guides to resources in many subject areas that have been created by WU librarians.

http://library.wustl.edu

Online Catalog

The online catalog includes records for all the libraries on campus, including the Kopolow Business Library. You may link to the catalog from the KBL website site or directly at http://catalog.wustl.edu.

Note: In the catalog, the location Olin Library refers to the main library east of Simon Hall, just beyond Graham Chapel.

Student Health and Counseling—Wellness Programs and Health Insurance

Registered, full-time students are eligible for health coverage through the Student Health Insurance Plan. The student's tuition statement is billed for the cost of health plan coverage. Complete information about eligibility, benefits, dependent coverage, and the cost is on the Habif Health and Wellness Center website: https://students.wustl.edu/habif-health-wellness-center/

The health plan includes on-campus health and counseling services, as well as wellness programs. The plan provides benefits while a student is both on campus and away from campus (such as during semester breaks, holidays, conferences, or travels abroad).

Health and counseling services under the plan are provided to all full-time students and their spouses/domestic partners (if enrolled) on campus. The Student Health Insurance Plan will pay all charges after a copayment. Laboratory work completed in SHCS is free to students and any of their enrolled dependents; however, there are fees for lab work sent to outside labs (generally lower than community rates).

Please note that you must be a registered full-time student to be covered through the Student Health Insurance Plan.

Sumers Recreational Center

The Washington University Office of Recreation, or WashU Rec for short, is a unit within the Department of Intercollegiate Athletics and the Division of Student Affairs.

WashU Rec is responsible for recreational facilities and programming on the Danforth Campus and is dedicated to providing students, faculty, and staff a first-rate health, wellness, and recreation experience.

Along with administering the facility and membership operations at the <u>Gary M. Sumers Recreation Center</u> and the <u>South 40 Fitness Center</u>, WashU Rec develops intramural sports programs, advises sports clubs, and provides a wide variety of fitness programs and services (BearFit).

Full-time students have complete and FREE access to the recreation center, including group classes, exercise equipment, tennis and basketball courts, Millstone Pool, relaxation chairs, and more. Please visit the website (link above) for more information.

Parking

Parking permits are required of all students with cars or motorcycles who drive to the campus or live in the residence halls. Permits are available

for purchase in the lower level of the Women's Building or <u>online</u>. These entitle the bearer to park in designated areas, at designated times, on the main campus during the academic year.

U-Pass

As the result of a partnership between Washington University and Metro, all full-time students can obtain Metro passes for use on both Metro buses and the MetroLink light-rail system. For more information and instructions on how to obtain a U-Pass, visit http://transportation.wustl.edu/wustlmetro pass.html.

RESEARCH AND LEARNING CENTERS

Olin Business School has established research and learning centers to provide students and the greater community with unique learning opportunities. By definition, a center is a focal point for organizing diverse activities. These centers are interdisciplinary in character, drawing together people and ideas from a wide range of areas.

Bauer Leadership Center

The George and Carol Bauer Leadership Center seeks to impact every student and faculty member, as well as the broader community, by highlighting the importance of values-based leadership.

Boeing Center for Supply Chain Innovation (BCSCI)

The Boeing Center for Supply Chain Innovation was established jointly by Olin Business School, the Boeing Company, and other corporate partners, with a view to fostering a more meaningful, mutually beneficial interaction between industry and academia. The BCTIM seeks to better expose teachers and students to world-class technology, operations, and supply-chain management practices. http://www.olin.wustl.edu/bcsci

Center for Customer Analytics and Big Data (CCABD)

Digital technology has made the creation, collection, and storage of ever increasing amounts of data possible and, in turn, has created a new industry around the slicing, dicing, and analysis of Big Data. Olin's newest center will offer opportunities for faculty, students, and companies to collaborate on analysis and research.

Center for Research in Economics and Strategy (CRES)

CRES advances understanding of firms and markets by supporting scientific research employing state-of-the-art analytical and/or empirical methods to address substantive questions in economics and strategy.

Wells Fargo Advisors Center for Finance and Accounting Research

Established in 2007, WFA-CFAR is the catalyst, focal point, and coordinating body for research in finance and accounting. WFA-CFAR is dedicated to the dissemination of cutting-edge research in finance and accounting by encouraging our faculty and students to work more closely with companies. This is done through the creative design of courses in Olin's degree programs, executive education programming, research white papers, conferences, publications, and projects for companies that involve both Olin faculty and students.

HELPFUL LINKS

Academic Resources

- WUIT
- Habif Health and Wellness Center
- Disability Resources
- o International student resources
- o The Graduate Center

Travel and Conferences

Accounting Policy Resources & Forms

Graduation

- Olin Business School graduate graduation ceremony
- Washington University May commencement and December recognition ceremonies

Around campus

- Student ID card
- o Dining Services
- Off-Campus living resources
 - Graduate Off-Campus Housing map by Graduate Student Senate
 - Quadrangle <u>resource</u>
 - Apartment referral services

Calendars

- o The Graduate School Academic calendar
- Campus Events calendar
- Office of the University Registrar- <u>Academic Dates and</u> <u>Deadlines</u>

