University of Arizona
Department of Economics
Graduate Handbook

Doctor of Philosophy in Economics

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I. Department Organization

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II. Becoming a Colleague

The fundamental goal of the Economics doctoral program is to transform students into successful economists. We want to move you from taking courses and exams to developing your own projects and contributing new research to the field. By the time you complete your PhD, you will have made a substantial contribution to the field of economics and prepared yourself to continue making contributions in the future.

The training has three components. First, the core courses provide the foundation for economic research. This is where you will develop the analytical and computational tools required to do economic research and where you will learn to take an economist's approach to solving problems. Second, ECON 508 and the 696 courses will take you to the frontier of economic research. The goal of these courses is to help you develop your own research program. Third, the second-year paper and presentation, the comprehensive exam (third-year paper and presentation), oral exam, and final dissertation defense provide a framework in which to develop your original contributions to the field.

Our program is designed to help students succeed on the job market and afterward. Once you get past the coursework and the first-year qualifying exams, your success will largely be determined by your success in research. You don’t get a good job based on your ability to take tests. You get a good job based on your ability to identify, develop and complete interesting research projects.

To this end, our program provides a structured transition from coursework into research, beginning as soon as the first year. From the first day in the program you should begin thinking about what topics and questions interest you. Attend the afternoon seminars. Get to know the faculty and other students; learn what they are working on. In the first year, Econ 508 provides an introduction to faculty research, practice at presenting research, and your first cut at producing novel research. The second-year paper and third-year paper provide a structured framework for your first full-fledged independent research endeavors. You present to the faculty and fellow students, receive written feedback from two faculty advisors, and finish research papers that often become dissertation chapters.

III. DEGREE REQUIREMENTS

Program Checklist & Timeline

First Year	Timeline
Math Camp	Summer before 1st year
Teaching Assistant Orientation (online)	August (before Fall semester start)
FERPA Training (online)	August (before Fall semester start)
Pass qualifying exams	Summer after 1st year
Second Year	
Submit forms to add MA in Economics (if applicable)	Fall semester
Submit Advising Agreement Form	February 15
Second-year paper proposal presentation	End of Spring semester
Third Year	
Second-year paper due	First day of Fall semester
Second-year paper presentation	Second week of Fall semester
Submit Advising Agreement Form	November 15
Submit Doctoral Plan of Study (GradPath)	End of Fall semester
Third-year paper presentation	April
Fourth Year	
Submit Comprehensive Oral Exam Committee Appointment Form (GradPath)	September
Submit and Pass Comprehensive Written Exam (often the third-year paper)	December
Submit Comprehensive Oral Exam Announcement Form (GradPath)	December
Pass Comprehensive Oral Exam	January
Submit Dissertation Proposal	February
Fifth Year	
Prepare Job Market materials	Summer before 5th year
Submit Doctoral Dissertation Committee Appointment Form (GradPath)	January
Submit Announcement of Final Oral Examination Form (GradPath)	March
Submit Dissertation	Per advisor instructions

For additional information on *GradPath* procedures, please see page 18.

Course Requirements for a PhD in Economics

Overview of Required Coursework:

Core Courses	24 units
Field Courses	27 units
Minor Courses	See below
Seminars	6 units
Dissertation	18 units
Total	**75 Units**

Core Courses for the PhD in Economics:

Course Number	Course Title	Semester
ECON 501A	Microeconomics I	Fall, 1st year
ECON 501B	Microeconomics II	Fall, 1st year
ECON 519	Mathematics for Economists	Fall, 1st year
ECON 520	Statistics for Economists	Fall, 1st year
ECON 501C	Microeconomics III	Spring, 1st year
ECON 502	Dynamics and Computation	Spring, 1st year
ECON 522A	Econometrics I	Spring, 1st year
ECON 508	Research Methods in Econ.	Spring, 1st year

Workshop Courses

Workshop courses are designed to expose you to the literature in subfields of economics and to give you an opportunity to explore research in those fields. Students specialize in (at least) two fields; this is accomplished by taking (at least) two courses in each of the fields. Students must also take at least five additional workshop courses, of which at least two must be taken for a letter grade (i.e., not on a pass/fail or audit basis). These five courses may be in any field, may include Econ 522b, and may include multiple versions of the same course if taught with different topics over time. This brings the required total courses to 9 (27 total units). With the permission of their advisor and the Director of Graduate Studies, students may count courses from outside of the Economics Department towards the 27 credits.

Field 1 (two courses in same field)
ECON 696_ (or course of similar level)
ECON 696_ (or course of similar level)

Field 2 (two courses in same field)
ECON 696_ (or course of similar level)
ECON 696_ (or course of similar level)

Elective seminars (any field)
Econ 522b or ECON 696_ (or course of similar level)
Econ 522b or ECON 696_ (or course of similar level)
Pass/fail or audit: Econ 522b or ECON 696_ (or course of similar level)
Pass/fail or audit: Econ 522b or ECON 696_ (or course of similar level)
Pass/fail or audit: Econ 522b or ECON 696_ (or course of similar level)

Total required field course units: 27 (of which 9 need not be for a letter grade)

Students may also take electives in special topics offered on an ad hoc basis. These electives could be economics courses, or courses offered by other departments such as mathematics, engineering, or psychology.

See Appendix D for model plans of study that students with different interests may follow.

Fields of Study

The following fields are available:

Experimental and Behavioral Economics (696A, 696B)
Econometric Modeling (696E, 696F)
Labor Economics (696H, 696I)
Industrial Organization (696P, 696Q)
Microeconomic Theory (696R, 696U)
Environmental & Energy Economics (696V, 696W)
Economic History (696X, 696Y)
Law & Economics (696Z)

Specialization in other fields (either within Economics or outside of Economics) is possible, subject to the agreement of the Director of Graduate Studies. Students interested in specializing in Financial Economics should consult the graduate director in Finance regarding coursework requirements. Similarly, students interested in specializing in Natural Resources or Agricultural Economics should meet with the graduate advisor in the Agricultural Economics Department.

Seminars & Dissertation Credit

Seminars are designated 697 with a letter following. They provide students with an opportunity to get involved in the research life of the Department. Each seminar typically meets once a week from 3:30 p.m. to 5 p.m. and features presentations by external speakers, local faculty, and graduate students. PhDs must take at least two seminars to graduate, but students in the third year and beyond are required to enroll in a seminar each semester. While the exact course requirements depend on the instructor, typically a student is expected to regularly attend seminars and potentially write research reports on the papers of other speakers. Students may also present their own work in the seminar. The seminars provide an introduction to the frontiers of current research and provide a forum in which the student may become comfortable presenting and discussing their own research.

In addition, each student must complete 18 hours of dissertation credit.

Minor Requirement

All students are required to complete a minor. In our program, most PhD students complete their minor in Economics. In that case, Economics courses are listed under the "Minor" section, in the Doctoral Plan of Study (GradPath). (It does not matter which courses are listed.)

All UA PhD students have the option of pursuing a minor in another field. A minor in another field involves taking a sequence of three or four courses in that subject; some programs require students to pass a minor exam. Students that are interested in a minor outside of Economics should discuss this choice with both the Director of Graduate Studies in Economics and their advisor. In addition, they should clarify minor requirements with the Coordinator in the Department /discipline of interest.

Students must incorporate the minor into the Comprehensive Exam. (See below.) In addition, one minor advisor must be on the Comprehensive Exam Committee. (See below.)

The Graduate College's policy on PhD minors can be found here:
https://catalog.arizona.edu/policy/graduate-minors

For students outside the PhD in Economics who would like to pursue a Graduate Minor in Economics, please see our website at
https://eller.arizona.edu/programs/doctoral/economics/minor.

Other Requirements

In addition to course requirements, students must:

- Pass the qualifying exams (theory and quantitative): see page 9.
- Pass the requirements for the 2nd and 3rd year papers: see pages 9-12.
- Pass the Comprehensive Written and Oral Examinations: see page 12-13.
- Teach two undergraduate courses (subject to waiver by the Director of Graduate Studies): see page 15.
- Maintain a 3.00 GPA**

**Note: In order to retain a GA position or receive other departmental funding, a 3.00 GPA must be maintained.

IV. Program Milestones

Qualifying Exams

The qualifying exams in Economic Theory and Quantitative Methods are held in either late May or June following the first year of study. The Economic Theory examination covers ECON 501a, 501b, and 501c. The Quantitative Methods examination covers ECON 520 and 522a. Copies of previous exams are available for study. Students who fail the examination in May/June will have the opportunity to retake the exam in July/August.

Students may review their first-attempt exam. They may obtain a copy of their first-attempt questions as a study aid. Students cannot review their second-attempt exams or obtain exam questions. Instead, students may receive information about their performance on a particular question by communicating with the professor who wrote it. Students are strongly encouraged to talk to the professor after the exam.

Second and Third-year papers

The goal of the second and third-year papers is to give students an early start on doing original research, while offering plenty of faculty feedback. Ideally these papers become part of a portfolio of papers that evolves into a dissertation.

Second-year paper

Students are expected to write a research paper during the second year of the program. This is a first step to get your feet wet in the world of research. You are encouraged to discuss the research with faculty. By February 15th of the second year, you must reach an agreement with a faculty member to advise the paper. The advisor must sign a form indicating their agreement to be the second-year paper advisor.[1] That advisor will provide you with valuable research advice and help set expectations. But, you are also encouraged to seek feedback and advising from other faculty members.

A paper proposal must be submitted at the end of spring classes. On reading day, you will present a proposal for the paper. The paper is due the first day of the Fall semester of the third year. Papers are presented to faculty and fellow students during the annual second-year paper conference, held in the second week of the fall semester.

The paper proposal should include a complete explanation of the research question, a review of related literature, an explanation of the proposed approach to address the

[1] The second-year paper advisor need not be your third-year paper advisor or even your dissertation advisor.

question, and—if possible—results from preliminary theoretical or empirical analysis. If the advisor does not judge the detailed proposal and proposal presentation to be acceptable, then the student will not be in good standing going into the next semester (i.e., third year).

The second-year paper should satisfy three basic criteria:
(1) The paper must demonstrate one or more results.
(2) With proper revisions, the paper has to be acceptable as a dissertation chapter.
(3) The paper has to look like a paper, in the sense that the structure and format of the paper meet certain requirements.

What constitutes a result varies depending on the nature of the research. For an empirical project, there is usually a data set, one or more hypotheses to be addressed, a method for analyzing the data, and a report of results. For a theory paper, a result is usually stated in the form of a proposition with a proof. For an experimental project there are usually testable hypotheses, experimental design, instructions, data from a pilot study, and an appropriate statistical analysis.

The requirement that the paper be acceptable as a dissertation chapter is meant to drive home the seriousness of the exercise and the need to start thinking about the research early. It is essential to regularly consult with faculty in your major field well before the paper is due. These consultations are critical for shaping the research question being addressed, for developing a plan to execute the research, and for learning about the standards for what constitutes an acceptable paper.

The paper must be structured and formatted so that the results are clearly communicated. Several elements are required:

- A title page with title, affiliation and an abstract; the abstract should succinctly state the problem addressed in the paper and the paper's findings.
- An introduction that expands on the abstract, explains why the problem addressed is interesting, states and gives intuition for findings, and relates the paper's findings to the literature.
- One or more core sections of the paper, which clearly lays out the question asked, sets up a model or framework with which to address the question, explains the approach being used, lays out the results, and discusses options for further work.
- Proper referencing, with all cited papers appearing in the list of references and, conversely, all papers in the list of references being cited in the body of the paper.

Grading will be based on the following criteria: core mastery, research question and design, contribution to economic knowledge, and writing & communication skills. There are three possible grades: Pass, Pass with Revisions, and Fail. The grades will be determined by consensus by two faculty referees.

A grade of "Pass with Revisions" will come with a detailed set of revisions that the student must execute, in order to pass the paper. The revision must be completed by November 1 and submitted to the referees for approval and conversion to a grade of Pass.

If a student receives a Fail on the Second-year paper then they are not in good standing in the doctoral program. The student has until November 15 to write an acceptable paper and return to good standing. It is the sole responsibility of the student to find two faculty members (not necessarily the original graders) to sign off on the revised paper.

The best 2nd year paper is awarded the Steven Manos Prize for the Best Second-Year Paper by a Doctoral Student. The prize is funded by the Steve Manos Endowment. The endowment honors the memory of Steve Manos, a graduate student and member of the Economics Department family, whose life was cut short by cancer in 2008. The recipient of the prize is determined by the Department faculty, based upon the originality of the research idea, the execution and completeness of the project, and the quality with which the ideas are communicated.

Third-year Paper and Conference Presentation

In the Spring semester of the third year, students are expected to submit a third-year paper. The expectations for the third-year paper are the same as those listed for the second-year paper. (See above.) A student's third-year paper must either address a different topic than their second-year paper or provide significantly new results beyond what was studied in the second-year paper. It is useful to think of the second- and third-year papers as potential dissertation chapters.

By November 15 of their third year, each student must identify a third-year paper advisor and have their advisor sign a form indicating their agreement to advise the student. Students are also encouraged to seek feedback and advising from one or more faculty members. Think of this as trying to figure out who would be a good match for your dissertation committee.

By the first day of the spring semester, students must submit a detailed proposal for the research. The paper is due at the start of April of the third year. Students present their papers to faculty and fellow students during the annual third-year paper conference.

As with the second-year paper, there are two faculty referees: the student's advisor and a second reader.[2] The faculty referees will read the paper, attend the paper presentation, assign a grade for the paper and provide detailed written feedback. Grading will be based on the following criteria: core mastery, research question and design, contribution to economic knowledge, and writing & communication skills. There are three possible grades: Pass, Pass with Revisions, and Fail. The grades will be determined by consensus by the two faculty referees.

[2] This third-year paper advisor need not be your dissertation advisor.

A grade of "Pass with Revisions" will come with a detailed set of revisions that must be executed, in order to pass the paper. The revision must be completed by the start of the Fall semester and submitted to the referees for approval and conversion to a grade of Pass.

If a student receives a Fail on the third-year paper, they are not in good standing in the doctoral program. The student has until July 15 to write an acceptable paper and return to good standing. It is the sole responsibility of the student to find two faculty members (not necessarily the original graders) to sign off on the paper.

The Edward E. Zajac Prize for the Best Research Paper by a Doctoral Student will be awarded for the best third-year paper. The prize is funded by the Edward E. Zajac Endowment, a fund set up by Prof. Zajac's colleagues to honor his years as a publishing economist and as head of the Department of Economics. The prize is decided using the same criteria as the Steve Manos Prize.

Comprehensive Written and Oral Exams

The Doctoral Comprehensive Examination tests students' ability to produce and present economic research. It has written and oral components that go hand-in-hand. Students are expected to pass the written portion by December of their 4th year and pass the oral portion by the end of January of their 4th year.

NOTE: In rare cases, students may be considered for a 6th year of GA funding. Students who fail to complete the comprehensive oral exam by January of their 4th year *will not* be considered for a 6th year of funding under any circumstances.

Students must form the Comprehensive Examination Committee by Labor Day of their 4th year. This is accomplished by submitting a Doctoral Comprehensive Examination Committee Appointment form via Gradpath (http://grad.arizona.edu/GradPath).

The committee consist of a minimum of four members. The Advisor/Chair and two additional members must be tenured or tenure track. The fourth member may be tenured, tenure-track, or a special approved member. Special members must be pre-approved by the Dean of the Graduate College. Any members beyond the fourth can also be tenured, tenure-track, or special approved members. The examination committee need not be the same as the dissertation committee—although we encourage students to think of their dissertation committee in forming their Comprehensive Exam Committee. Students are encouraged to both talk to the chair of the committee and the Director of Graduate Studies for advice in forming their committee. Committees are approved by the Department Graduate Advisor and the Graduate College.

All four committee members must be in attendance for the entire oral exam. The oral exam should be at least one hour in length but should not exceed three hours. Students should expect the typical exam length to be roughly 1.5-2 hours. To pass the exam, there can be no more than one negative or abstaining vote. Students who fail the oral exam will be allowed one chance to retake the exam. The retake should occur at least three months after the initial exam date. The Graduate College allows no more than one retake of the oral exam.

The requirements for the written and orals portion of the exam are determined in consultation with the committee.

- The written portion typically consists of a piece of research that may be related to the second- or third-year papers. Many students will use their third-year paper. Grading will be based on the following criteria: core mastery, research question and design, contribution to economic knowledge, and writing skills. Grades will be determined by a rubric similar to that used for the second- and third-year papers. The grading is done by the Comprehensive Exam Committee. Students must receive an average grade of 2 (on a scale between 1 and 3) to receive a grade of Pass.
- The oral component typically consists of presenting an overview of your dissertation that briefly touches on all aspects of the thesis. To aid in answering questions, students may also wish to prepare overheads for key tables. The format of the Comprehensive Oral Examination typically involves a short presentation followed by answering the committee's questions. The questioning will often focus on the expected dissertation chapters, but will expand to address the fundamental knowledge that student should have mastered, in order to complete research in the field. Grading will be based on the following criteria: core mastery, research question and design, contribution to economic knowledge, and communication skills. Grades will be determined by a rubric similar to that used for the written portion. The grading is done by the Comprehensive Exam Committee. Students must receive an average grade of 2 (on a scale between 1 and 3) to receive a grade of Pass.

At the end of the oral exam, the faculty committee discusses how the student can best prepare for a successful job market in the following year.

Students who fail either the written or oral comprehensive exams must make a plan with their committee to retake the exam(s) within four months. This plan must be filed with the Graduate Coordinator.

Students must be registered in the semester the examination takes place. However, it is fine to schedule the exam after the end of the spring semester or before the first day of classes in the fall semester. (UA PhDs are not required to enroll for 1 unit of summer session.)

Before scheduling and submitting your Announcement of Comprehensive Exam: Please make arrangements with Department Coordinator for a room and use of Department equipment (e.g. projector and laptop). Do not assume that the department seminar room (401KK) will be available.

Dissertation Prospectus/Proposal

Within one month of passing the Comprehensive Oral Exam, students must meet with their advisor to review their progress and form a dissertation proposal. Students must then file the dissertation proposal with the department. The Graduate Coordinator will submit a proposal confirmation form in GradPath on behalf of the student.

Final Oral Defense and Doctoral Dissertation Committee

The Doctoral Dissertation Committee is a set of faculty responsible for advising and approving the student's dissertation. The committee is formed by agreement between the student and faculty. Committee members have experience relevant to the student's dissertation research. Students typically take the 696s offered by their committee members. The Doctoral Dissertation Committee should be approved at least 6 months prior to the Final Oral Defense. Per the Graduate College, the committee must have a minimum of three members (including the committee chair), all of whom must be University of Arizona tenured, tenure-track, or approved as tenure equivalent. If the committee has a fourth member, they may be tenured, tenure-track, or a special approved member. Special members must be pre-approved by the Dean of the Graduate College; see Department Coordinator regarding Special Member Approval. Any members beyond the fourth member can also be tenured or tenure-track, or special approved members.

Once the Doctoral Dissertation Committee has been approved by the Graduate College, students submit the "Announcement of Final Oral Defense" form. This must be done at least seven working days prior to the Defense date. All forms are submitted online via GradPath. To defend during the either the Fall or Spring semester, PhDs must register for a minimum of one unit. Requirements may be different for International students.

Before submitting the Announcement of Final Defense: Please make arrangements with Department Coordinator for a room and use of Department equipment (e.g. projector and laptop). Do not assume that the department seminar room (401KK) will be available.

All dissertation committee members are expected to attend the final defense. During the final defense, candidates present the dissertation to the committee members who offer comments on the material. If a committee has only three members, all must approve the dissertation. (If there are four or five members, there may be one dissenting vote.) The committee may decide that the dissertation is complete and approve the dissertation. They may decide that the dissertation needs minor revisions that will be examined only by the chair of the committee, or they may decide that the dissertation needs major revisions that must be examined by all members of the committee. The student's Committee Chair will process the voting forms and render Exam results via GradPath. Committee members will receive e-mails from GradPath notifying them when a student's form/exam results have been submitted and/or approved.

At the end of the defense, the faculty committee discusses how the student can best prepare for a successful career after graduation.

Preparation of the dissertation follows the Graduate College format and style rules. Refer to the Manual for Electronic Theses and Dissertation on the Graduate College Website: https://grad.arizona.edu/gsas/dissertaions-theses/submitting-your-dissertation

Program Teaching Requirement

Learning to teach effectively is an important skill, even if your primary career goal is research. By learning to teach effectively, you will become a better communicator. This is an important skill for any researcher and, more generally, for any career you will encounter.

We expect our doctoral students to teach at least two undergraduate courses during the program. In order to be eligible to teach and TA you must attend the Teaching Assistant Training Online (TATO), the Economics Department teacher training program (ECON 597C), and pass a departmental teaching audition. Students may be asked to pass a teaching audition a second time, at some point during their graduate career. The teaching requirement may be waived by the Director of Graduate Studies.

V. ACADEMIC PROGRESS FOR PHD STUDENTS IN ECONOMICS

First year

Students typically take ECON 501a, ECON 501b, ECON 519, and ECON 520 during the fall semester, and ECON 501c, ECON 502, ECON 508, and ECON 522a during the spring semester. Students should receive grades of B or better in all courses. While the University does not use pluses or minuses in official grades, the Department tracks pluses and minuses internally. A grade of “B minus” in a course usually indicates that a student needs to do significant work to enhance his or her skills to be able to pass the preliminary examination.

It is mandatory to participate in the graduate college assistantship training (TATO) and the Economics Department’s teaching workshop (ECON 597c) in the fall. In addition, students must pass the teaching audition in the spring. International students must score a minimum of 24 on the TOEFL iBT Speak, or pass the Economics Department’s English Proficiency exam. (See Appendix II for more information.)

A Master’s of Arts degree is available to students who either leave the PhD program or wish to obtain the MA while continuing in the PhD program. If students choose to earn the MA, submit the “Master Plan of Study” (MPOS) via GradPath late in the spring of the first year. Please list all core coursework (core courses are listed on page 6) and two additional 3-unit courses on the MPOS. The list of courses should NOT exceed 30 units. The Department’s Director of Graduate Admissions will approve the form as ‘advisor.’

In order to continue in the program, students must pass the qualifying exams in Economic Theory and in Quantitative Methods. See page 9 for more information.

Second year

Students are expected to take and perform well in the second-year coursework. This typically consists of six classes (e.g., 696s, 522b, or other approved classes). Students are also encouraged to regularly attend seminars in their field, to learn about the state-of-the-art research.

Over the course of the second year, students should talk to faculty and establish contacts and get advice. In the spring semester, students will choose an advisor to provide career and research advice. The goal of the student-advisor pairing is to provide students with an advisor who is well suited to their research agenda. *Students are encouraged to later switch advisors if they feel that working with a different faculty member would be more beneficial to their research.*

In the spring semester, students are expected to begin working on the second-year paper. See page 9 for more information.

After completing all core coursework (30 units) and passing the preliminary exam, the Department Graduate Coordinator will report “Master’s Completion Report” to the Graduate College Degree Certification Office. Please note that MA students must submit an “MA Committee form” via GradPath: The Director of Graduate Studies will serve as Committee Chair; student will also list two additional faculty from core courses as ‘committee members.’ Once the MA Committee form has been submitted, the Coordinator will submit the student’s “Master Completion Report.”

By the end of the third semester, students will submit the “Doctoral Plan of Study” (DPOS) via GradPath. Please list all of the core coursework, 696s, and 697s on your DPOS. Please list three courses in the minor field. (It doesn’t matter which courses you list, unless you have opted to select a minor outside the Department of Economics. If so, please follow the guidelines set by that department.) The Graduate College will route your DPOS to the Director of Graduate Studies and your major advisor for approval.

Third year

During the third year, students may continue taking 696 courses, whether for a letter grade or not. In addition, students enroll in a 697 seminar for both the fall and spring semesters. Third-year students can register for dissertation units starting in the Spring semester of their third year.

At the start of the third year, students finish up their second-year paper and present it. (See page 9.) Students should spend much of the year working on their third-year paper. (See page 10.)

Fourth year

The goal of the fourth year is to execute and write a job market paper. Students are encouraged to speak to their advisor (and, more generally, their committee) often, to get feedback and professional advice. With the advice of the committee, students should also polish earlier work with an eye toward publication.

By Labor Day of the fourth year, students should have formed their Doctoral Comprehensive Exam Committee. This committee will serve to execute and grade the Comprehensive Exam. However, it will also serve to guide the students through their research on the job market paper.

The Department expects students to complete the written comprehensive exam by December and the oral comprehensive exam by January. (See page 12.) The dissertation proposal is due one month after a student completes their oral comprehensive exam. (See page 13.)

Students are expected to register for the 697 seminars. Students should also register for dissertation credit and may take 696s, whether for a letter grade or not. Ultimately, all PhD students must accumulate 18 hours of dissertation credit before graduating.

Fifth year

The fifth year is the job market year. At the start of the year, students should have a draft of their job market paper. Students should expect to polish it and re-polish it for the next several months.

In addition, students should be sure to secure three letters of recommendation and seek out job market advice from letter writers.

The Department has meetings to prepare students for the job market. In September, begin preparing your job market packet. This typically consists of your job market paper (and other research), a curriculum vitae (CV), a research statement, a teaching statement, and a professional website. Some schools also require a diversity statement. Deadlines for schools vary—expect the earliest deadlines to be around October 15th. The deadline to post material on our department job candidate website is October 15. (See page 23 for more information on the job market.)

Students are expected to register and present their job market paper in the 697 seminars. Students should also register for and complete dissertation credit. Ultimately, all PhD students must accumulate 18 hours of dissertation credit before graduating. Students are expected to complete the final draft of the dissertation and the defend dissertation during this year.

VI. COLLEGE AND DEPARTMENT PROCEDURES

GradPath

GradPath is the Graduate College's degree audit system that facilitates the tracking and monitoring of graduate student academic progress. GradPath allows the student, their program, and the Graduate College to see where a student is in their academic journey at a glance.

GradPath can be accessed via UAccess Student. On the main page of your Student Center, click the dropdown menu in the 'Advising' link. Here you'll find the link to GradPath. Click the "GradPath Forms" link to access the forms available for your program(s). Each form must be completed and approved by the Graduate Coordinator, your selected faculty advisor, the Director of Graduate Studies, and the Graduate College Degree Advisor, so it's important that you don't leave these to the last minute before deadlines.

The first form you must complete is the Responsible Conduct of Research Statement. This should be done very early in your PhD career. After that, the order and timing of submission is indicated in the Program Checklist and Timing section on page 5.

For more information on how to access GradPath, please see: https://grad.arizona.edu/gsas/gradpath.

Registration Requirements & Procedures

Prior to each semester, the Department staff register all Economics graduate students for classes. Beginning in the third year, all students in residence must register for one of the seminar classes (697s) each semester.

Until a student completes both all of the course requirements plus the written and oral Comprehensive Exams they must register for a minimum of 3 graduate units each fall and spring. Moreover, they must complete 18 dissertation units. After these requirements are met, students must register for a minimum of 1 unit each semester, until final copies of the dissertation are submitted to the Graduate Student Academic Services.

Note, there may be addition matriculation requirements, required either for a visa or funding. In order to maintain full time status, students must be registered for a minimum of nine semester credits each term. Students who have been awarded Graduate Associateship must be registered for a minimum of six semester credits.

Doctoral students do not have to register for graduate units during Pre-session, Summer or Winter sessions, even if completing degree requirements (including the Comprehensive Exam or the Final Oral Exam).

All graduate students are subject to the Continuous Enrollment Policy and must pay in-state or out-of- state tuition and fees in order to remain in the program. The exception is if the student is excused by an official Leave of Absence. If the student fails to obtain a Leave of Absence or maintain continuous enrollment, he or she will be required to apply for re-admission, to pay the Graduate College application fee, and pay all overdue tuition and fees, including cumulative late penalties. No tuition or registration waivers can be applied retroactively.

Leave of Absence Policy & Procedures

There are provisions made for students who need to take a leave of absence. Information for the policies and procedures can be found at https://grad.arizona.edu/policies/enrollment-policies/leave-absence. A Leave of Absence may not exceed one year throughout the student's degree program.

Payment of Fees

Payment of registration, tuition, and miscellaneous fees is due on the first day of classes. While students receiving Graduate Associateships at 0.50 FTE do not have to pay registration and tuition fees, there are several miscellaneous fees that must be paid by the first day of classes. It is sometimes difficult to determine how much you owe for these fees because the Graduate College does not enter the total remission until several weeks after the beginning of the semester.

You may visit the Bursar's website at http://bursar.arizona.edu/students/fees to find out how much you will owe. Select the term of enrollment, then 'Main Campus,' 'Graduate,' whether you are a continuing or new (non-continuing) student, 'Not Listed Below' (as PhD students are not required to pay differential tuition), and finally your residency status. Only long-term residents of the state of Arizona are considered 'Residents,' though you may apply for residency status after living in the state for several years. Once these variables are selected, you will be shown the tuition cost and mandatory fees for the units you will take during the semester. Remember that, as a GA, you will have your tuition covered by the department. You are only required to pay will be the remaining fees, assuming that you are in good standing. You can pay fees through UAccess Student Center (http://uaccess.arizona.edu).

Note: The UA Bursar's Office assesses late fees if students do not pay fees by first day of classes.

VII. Financial Support

Graduate Associateships

Graduate students are primarily supported through Graduate Associateships. Students awarded Teaching Associate positions are assigned to support a faculty member with course responsibilities. Most frequently, TAs are asked to grade and hold office hours and review sessions. Teaching Associates whose native language is not English and who are not citizens or permanent residents of the US or an English-speaking country must demonstrate proficiency in spoken English. (See Appendix II for guidelines.) As a general rule, Teaching Associates do not serve as the primary instructor for a course during the fall or spring semesters.

Research Associates (RA) positions are generally provided by individual faculty members' research grants. For these particular research assignments, faculty members submit requests for students to the Director of Graduate Studies or the Graduate Coordinator. The duties of graduate research assistants vary according to the nature of the research project in which they participate and the source of funding. In some cases, the assigned work is directly applicable to the student's own research interests.

Decisions regarding graduate assignments are made by the Director of Graduate Studies, the Department Chair, and the Graduate Program Coordinator. Each semester, students and faculty are given the opportunity to request specific assignments. The committee makes every effort to honor the requests whenever possible. (See Appendix III for requirements and benefits associated with Graduate Associateships.)

It is important to note that, each semester, Graduate Associates are evaluated by the Director of Graduate Studies. The Graduate College does not allow a student receiving an unsatisfactory appraisal to receive funding in subsequent semesters. Additionally, students who do not meet satisfactory progress in the Economics PhD program are vulnerable to losing their funding.

Satisfactory Academic Progress

The following list summarizes the criteria used to determine satisfactory progress and eligibility for funding:

- Students must pass both the Economic Theory and Quantitative Methods qualifying exams after the first year.
- Students must pass both the second- and third-year paper requirement. Students who do not submit passing papers have the opportunity to revise their papers. The revised second-year paper must be submitted (and passed) by November 15th of the third year, while the revised third-year paper must be submitted (and passed) by July 15th in the summer after the third year.
- Students must complete both the written and oral components of the Doctoral Comprehensive Examination, by February 1st of their fourth year.

- To receive funding in the fifth year, students must meet all the above criteria. Moreover, they must appear to be prepared to enter the job market during the fifth year and to defend their dissertation by the end of their fifth year.
- Students must maintain a grade point average of at least 3.0. Students that fall below a 3.0 GPA will not be eligible for funding, including University of Arizona (UA) tuition waivers, UA TA/RA salaried positions and fellowships/grants, except in the case of a one-semester exceptional appointment that must be approved by the Graduate College.

For more information on GA requirements, please see: https://grad.arizona.edu/funding/ga/qualifications-appointment.

Graduate Registration/Tuition Scholarships

The university charges both non-resident tuition and registration (in-state tuition) fees. Arizona residents are not charged tuition but do pay registration (also known as 'in-state') fees. Graduate Associates appointed to a 0.50 FTE position (full time) have both their registration and tuition waived as part of the assistantship. Graduate Associates appointed to a 0.25 FTE position (half time) receive a reduction of their tuition to in-state costs and a 50% waiver of the reduced tuition cost.

Summer/Winter Session Teaching

Students who have passed the qualifying exams and a teaching audition may apply to teach a course during winter session (taught between the Fall and Spring semester), Pre-Session (taught in May, after the Spring semester), Summer I or Summer II. All students in the PhD program are expected to teach two courses prior to completing the program.

Research Grants

The department awards $300 research grants to help students defray the cost of attending conferences, buying software, acquiring data etc. The department typically awards larger grants to students in their job market year. To apply for the grant, students email the Director of Graduate Studies at econ_gradgrants@list.arizona.edu stating the funds requested and what the funds will be used for. Students are encouraged to do so before undertaking the associated cost. If they don't, they risk not being funded.

In addition, students may apply to the department for small grants, if they have research expenses that exceed $300. These additional grants can be used to cover attending a leading Economics conference, collecting important data, or other research needs. (They cannot be used to purchase a computer.) To qualify, students must demonstrate that they have used the $300 for important research needs (and not simply "approved expenses"), they have exhausted all other potential funding sources, and that they have not received any other funding for the same project. (The $300 may be part of the source for that project.)

Funding proposals are considered two times per year: October 15th and February 15th. (In exceptional circumstances, students may apply "off cycle.") Applications should be sent to the graduate coordinator, laying out why the proposal meets the qualifications above and explaining the importance of the funds. In addition, the student's primary advisor should submit an email of support. Award decisions are made by the DGS and are made on a competitive basis.

The Graduate College, in conjunction with the UA's Graduate and Professional Student Council (GPSC), also awards travel grants for graduate and professional students who are attending or presenting research at academic or professional conferences. For further details, visit http://www.gpsc.arizona.edu/sections/funding/fundingSubsection/travelGrants.php.

Parental Leave

We strongly support students' ability to continue their studies in the Department as their families grow. To this end, in addition to the 12 weeks of paid leave offered by the Graduate College, we provide further support to students who have children. The additional support applies to students who have a child through birth or adoption while in the program and become the primary caregiver of that child. The Department may require evidence that the individual is the primary caregiver of the child. We refer to these individuals as "eligible students" in the remainder of this section.

Eligible students will have one year added to their timeline for continued Satisfactory Academic Progress as defined above. Additionally, we guarantee that eligible students with Teaching Assistantship support will be assigned to Teaching Assistant positions in Principles courses in the semester in which they become parents. This should allow eligible students to adjust Teaching Assistant responsibilities, by shifting the timing of their responsibilities within the semester. Finally, if the eligible student desires, they are guaranteed to be approved for a leave of absence from the program for up to a year following when they have a child. Additional or adjusted accommodations may be approved subject to the discretion of the Director of Graduate Studies. Eligible students expecting children should discuss their options with the Graduate Coordinator and the Director of Graduate Studies, to determine which accommodations best fit their needs.

Child Care Subsidies and Family Friendly Information

The Graduate College is dedicated to promoting and strengthening family relationships. Many resources have been designed to help graduate students balance and manage family, work, and school. These include:

- Graduate Associate/Associate Parental Leave
- Temporary Alternative Duty Assignments (TADA) for Teaching Assistants/Associates

- Extension of Time to Degree Policy
- Life & Work Connections - Child and Elder Care Resources

More information can be found: https://grad.arizona.edu/new-and-current-students.

VIII. Job Market Resources

Throughout the program, students should have their eye on the job market year. The market is very competitive—for each position, there are hundreds of applicants. The more a student can show that they have a successful and viable research agenda, the better off they will be. This includes published papers, papers submitted to journals, working papers, grants received, conference presentations, and courses taught. Our program is designed to help students succeed on the job market and afterward.

Job Market Timeline

Below is an overview of the timeline for the academic job market.

Practice Job Talk: September-October. The timing should be chosen in consultation with a student's committee.

Submit Applications: October 15th – December 1. Different schools will adopt different timelines. The earliest applications will be due by October 15th; applications with early deadlines typically begin reviewing packets very early. While some schools list very late deadlines in their advertisement, it is generally understood that schools begin reviewing packets by December.

Interviews: Traditionally, most schools conducted interviews in person during the Allied Social Science Association (ASSA) meetings (start of January). However, interviews have been online in recent years. While most employers have scheduled virtual interviews around the ASSA timeline, some schools have scheduled their interviews several weeks earlier.

Flyouts: Flyouts typically began just after the ASSA meetings. It remains to be seen what the new norm will be. Some employers schedule their flyouts in February. Many employers continue flyouts beyond that time, until the position is filled. Students should be prepared for early January flyouts, however.

Job Market Packet

Applying for a job consists of submitting a "job market packet." The packet consists of a job market paper, a CV, a research statement, a teaching statement, and other research papers (with consultation of your committee). In addition, some schools ask for a diversity statement. Accompanying this are letters of recommendation. In addition, students should put together a job market website.

Job Market Paper: The job market paper is the star of the packet. It should reflect your best research to date. It's important that the job market paper is written clearly and typo-free. Students often underestimate the time it takes to write the paper clearly. It's important to start writing and polishing the paper early.

CV: The CV should contain the following information:

- Personal Information: your name, address, phone number, e-mail address, and citizenship.
- Research and Teaching Fields.
- Published Papers (if any) and Abstracts.
- Working Papers and Abstracts. (Highlight the Job Market Paper.)

Depending on the types of jobs you are looking for, it may also contain:

- Grants Received
- Refereeing Completed
- Conference Presentations
- Past Employment Related to Economics (if it exists and is relevant)
- Data Skills

The goal is to highlight your marketable features.

Research Statement: This is typically a 1-2 page statement that succinctly describes the importance of your dissertation and key results. The best research statements are those that highlight an agenda that cuts across multiple topics. However, such an agenda is not necessary at the point of leaving grad school.

Teaching Statement: This is typically a 1-2 page statement that clearly describes your teaching philosophy. A designated member of the Department reads through all teaching statements and offers feedback.

Letters of Recommendation: Most schools and employers require three letters of recommendation. Recommendation letters are typically written by faculty with whom you work closely. These letters are an important component of the application. Much of what faculty say is determined over the course of your career here. If you are performing well and show signs of great potential, we will work hard to publicize your potential. At the other extreme, if you have been just scraping by, we will have to communicate this. (To place our students well, it is important that we do not get a reputation for overselling students who cannot perform in job placements.)

The three letters of recommendation typically focus on research potential. In addition, a designated member of the Department will write a letter of recommendation related to your teaching abilities.

Job Market Website: Job market websites are an easy way for potential employers to look at your work. They should have a professional look, with links to your CV and papers posted as pdfs. Do *not* use Google Drive or Dropbox to post pdfs, as many employers will not be able to access your pdfs. Github or a U-System link (https://account.arizona.edu/welcome) are more stable options that any employer will be able to access.

Keep in Touch

The job market process is very stressful. We recommend keeping in touch with your advisors throughout the process. Often, it helps for your advisor and committee members to write e-mails on your behalf. Moreover, they might hear of pertinent jobs or might tell you how to interpret job market communication.

Plan Early

Many students underestimate the time that it takes to write and polish a job market paper. They also underestimate the time it takes to put together a job market packet and send applications out. As a general rule, plan early!

Planning early also involves thinking of your job market early on in your career. If you can get papers into the pipeline early, you will be more likely to have a publication on the job market—something that will be very helpful! *Always remember to consult your advisor before sending papers out for review.*

Resources

The Department is here to help make your job market year go as smoothly as possible. The Placement Director holds a series of job market meetings and guides students through the process.

The Writing Skills Improvement Program (WSIP) is available to help you polish your paper(s). Students are encouraged to go early in their career—even as early as their second year (with class referee reports). Doing so can point students to writing mistakes that they consistently make and help them anticipate problems before they go on the market. More information can be found here:
Writing Skills Improvement Program | A Professional Academic Writing Resource (arizona.edu)

The WSIP also runs a summer workshop called the Writing Institute. Students are encouraged to go after their 2^{nd} or 3^{rd} year.

IX. Department Citizenship

Department Access and Security

The Economics department is located on the fourth floor of McClelland Hall. While in the program, all PhD students will receive keys to the department.

By order of the fire marshal, the doors to the department should remain closed at all times. The front doors to the department are unlocked from 8:00am to 5:00pm Monday through Friday. They should remain locked and closed at all other times. The back door to the department is shared with MIS and should be closed and locked at all times. *Please do not prop the doors open!*

The door between the front office and main department should be closed and locked during all non-business hours. Also, please do not leave unsecured personal items (i.e. laptop computers or wallets) at your carrel.

Student Office Space

Students are assigned a study carrel for their use while in the program. This space consists of a desk, chair, and an overhead cabinet that locks for security. It is important to remember that this is a study area. *Show respect for fellow students and faculty by keeping the noise level low.* Teaching Associates should never work with their students in the carrel area.

Wireless connectivity is also available throughout the building. Some carrels are equipped with an Ethernet port. If needed, arrangements can be made to ensure access to a port.

Please remember that the department cannot guarantee the security of belongings left in the carrel area. It is best to secure valuables in the overhead portion of your carrel. Please keep your carrel area neat.

Fourth and Fifth year students may be asked to move to another building (Esquire) where the department has additional study space.

Graduate Lounge

The Department maintains a lounge for use by the Economics doctoral students. The lounge contains desktop computers, one laser printer, a refrigerator, a microwave, and student mailboxes. Upon arrival, students will receive an individual sign-in and password to access the computer and the network printer. Please remember to log off.

This area is used as a group study area and a place to relax and visit with fellow students. Keep this area neat and orderly. Make sure that food items are not left in the refrigerator for long periods of time. It is the student's responsibility to keep the appliances clean.

Office Hours Rooms

There are three small rooms located in the front office of the department. They are set aside for Teaching Assistants to hold office hours and meet with students. At the beginning of each semester, Teaching Assistants should see the Undergraduate Coordinator to book these rooms. Times and rooms will be assigned on a first-come first-served basis.

When not in use for office hours, the rooms can be used for group study by doctoral students. Please check the schedule before using the room and be sure to vacate the room for students who have it scheduled for office hours. In addition, please be sure to vacate the room on time, if another Teaching Assistant has the room scheduled immediately following your office hours.

Department Copiers

The department has two copy machines that are accessible to students. The main copier (located in the mailroom) is primarily used for copying related to teaching and department business. Students may use this machine to make copies for their supervising instructors. This machine is normally available during the department's open hours, 8:00 – 5:00 M-F.

There is a smaller copier located mid-department which is primarily for graduate students to use and is available at all times. While we currently do not have a limit or charge students for use of this machine, usage is monitored and we ask that students limit use to coursework and research needs.

Appendix A: Masters in Economics

The program is designed for PhD students only. However, an MA option is given to students who either leave the PhD program early or wish to obtain a master’s while continuing the PhD program.

Students interested in earning the MA in Economics must complete 24 hours of core courses plus 6 hours of graduate courses subject to the Graduate Director’s approval (consider using the 696 seminar courses). Students must submit the “Plan of Study” (ECONMA) listing all core coursework and two additional courses. Further, students must receive a Master's pass on the master's examination; this exam is typically the same as the PhD qualifying examination. Students opting for the MA must also submit a “Master's/Specialist Committee Appointment Form” listing the Director of Graduate Studies as Advisor. Students earning the ECONMA do not have a committee. After the Committee Appointment form has been approved, the Department Coordinator will submit the “Master's/Specialist Completion Confirmation” via GradPath.

Core Courses:

Course Number	Course Title	Credit Hours
ECON 501A	Microeconomics I	3 Hours
ECON 501B	Microeconomics II	3 Hours
ECON 519	Mathematics for Economists	3 Hours
ECON 520	Statistics for Economists	3 Hours
ECON 501C	Microeconomics III	3 Hours
ECON 502B	Dynamics and Computation	3 Hours
ECON 522A	Econometrics I	3 Hours
ECON 508	Research Methods in Econ.	3 Hours
Total		**24 Hours**
Two Additional Courses		**6 Hours**
Grand Total		**30 Hours**

Students may substitute ECON 519 with ECON 522b.

APPENDIX B: GRADUATE ASSOCIATE POLICIES

Academic Eligibility

Graduate Associates must be enrolled in a graduate degree program at the University of Arizona. At the time of admission, they must have a GPA of 3.0 or higher and they must maintain a minimum cumulative 3.0 GPA in University of Arizona graduate credit courses.

Employment Status and Limitation

Graduate Associates are salaried employees. In the Department of Economics, they are appointed at either 0.25 FTE or 0.50 FTE. Depending on the appointment, they are required to work an average of 10 or 20 hours per week.

Please refer to the Graduate College's GA Manual for all UA policies related to Graduate Assistant/Associate employment: https://grad.arizona.edu/funding/ga.

Enrollment Limitations

In the Fall and Spring semesters, Graduate Associates are required to enroll for and complete a minimum of six units of graduate credit each semester. Graduate Associates are not required to enroll during the summer session to maintain student employment.

Minimum Training Requirements

Graduate Associates who will have direct instructional contact with students are required to complete TA Training Online (TATO), UA Harassment & Discrimination Prevention Training, and FERPA Training. See https://grad.arizona.edu/funding/ga/mandatory-online-training for more information.

In addition to these Graduate College requirements, the Department offers a teaching workshop (ECON 597C), which is mandatory for all first-year students in the doctoral program.

Additional Requirements

No commercial activity: The Graduate Council has ruled that Graduate Associates are not allowed to engage in any commercial activity relative to the courses that they are assisting in the university. For instance, they are not allowed to sell course material or conduct paid review sessions (for courses in which they are a TA).

Assignment to graduate level classes: Graduate Associates may not be the instructor of record for classes giving graduate credit.

APPENDIX C: ECONOMICS PHD MINOR FOR STUDENTS IN OTHER PROGRAMS

The Economics Department offers a PhD minor for doctoral students in other programs who wish to pursue a minor in Economics.

Students may choose between an emphasis in Economic Theory or Econometrics. A minor in Economics with an emphasis in Economic Theory consists of these four courses:

ECON 501A – Microeconomic Theory I
ECON 501B – Microeconomic Theory II
ECON 501C – Microeconomic Theory III
ECON 502B – Dynamics and Computation

A minor in Economics with an emphasis in Econometrics consists of these four courses:

ECON 520 – Theory of Quantitative Methods in Economics
ECON 522A – Econometrics I
ECON 522B – Econometrics II
An ECON 696 field course

Students must earn an average of B or better in these courses core courses. Students will also need to take ECON 519 Mathematical Economics (plus department's Math Camp).

At the discretion of the Director of Graduate Studies, courses may be substituted for these courses. Exceptions can be made on a case-by-case basis.

Students must also pass a written comprehensive exam in either Theory or Quantitative skills, as appropriate to their emphasis, which is given in May/June of each year.

APPENDIX D: EXAMPLE PLANS OF STUDY

Students must take 75 total units to graduate with a PhD in Economics.

Core courses: 24 units
Workshop courses: 27 units, of which 9 need not be for a letter grade
Seminars: 6 units
Dissertation: 18 units
Minor courses: variable, see Page 8.
Total: 75 units

All students must take the same set of core classes in their 1st year in the program, unless they are explicitly given the option to substitute a course by the Director of Graduate Studies. These first year courses provide core training in microeconomic theory and econometrics, teach digital research skills such as coding and computation, introduce the student to behavioral and experimental economics, and transition the student into undertaking their own research.

In the 2nd year and beyond, students may choose from a variety of workshop courses as electives, either from within the Department of Economics or, with permission from their advisor and the DGS, from other departments (e.g., law or mathematics). Students must have at least two complete fields. Fields are defined as two courses within the same area of study. The other workshop courses may be selected according to the student's research interests. The same course number may be used twice if covering different topics. For instance, a labor student may take 696H multiple times, so as to emphasize topics in education, crime, and/or migration.

Students in their 3rd year and beyond take one of our seminar courses every semester until they graduate. Students may also take additional workshop courses beyond the 27 units required by the program---and many do choose to! Dissertation units may be taken in amounts from 1 to 9 units in each semester from the start of the 4th year.

A series of example plans of study follow, in which students with different research interests select courses to complete their degrees. These plans are loosely based on plans followed by actual students. PF/A indicates taken on either a pass/fail or audit basis (i.e., not for a letter grade).

Applied Microeconomics: This student is interested in water access and policy. The two fields selected by this student are Environmental & Energy Economics (696W and 696V) and Economic History (696X and 696Y). They take econometrics and labor classes in order to learn about relevant empirical methods.

	Course Title	Units
1st year	Core courses	24
2nd year, Fall	522B: Econometrics	3
	696E: Econometric Modeling I	3
	696W: Env & Energy (Empirical)	3
2nd year, Spring	696F: Econometric Modeling II (PF/A)	3
	696V: Env & Energy (Climate)	3
	696Y: Economic History II	3
3rd year, Fall	696P: Industrial Org I (PF/A)	3
	696H: Labor Econ I (PF/A)	3
	697B: Empirical Seminar	3
3rd year, Spring	696X: Economic History I	3
	697B: Empirical Seminar	3
4th year, Fall	Dissertation Units	3
	697B: Empirical Seminar	3
4th year, Spring	Dissertation Units	6
	697B: Empirical Seminar	3
5th year, Fall	Dissertation Units	3
	697B: Empirical Seminar	3
5th year, Spring	Dissertation Units	6
	697B: Empirical Seminar	3
	Total	93

Applied Microeconomics: This student is interested in income inequality and migration. The two fields selected by this student are Labor Economics (696H and 696I) and Econometrics (696E and 696F). They take other applied classes because they complement their interests.

	Course Title	Units
1st year	Core courses	24
2nd year, Fall	522B: Econometrics	3
	696E: Econometric Modeling I	3
	696H: Labor Econ I	3

2nd year, Spring	696F: Econometric Modeling II	3
	696I: Labor Econ II	3
	696Q: Industrial Org II (PF/A)	3
3rd year, Fall	696H: Labor Econ I	3
	696W: Env & Energy (Empirical) (PF/A)	3
	697B: Empirical Seminar	3
3rd year, Spring	696H: Labor Econ I (PF/A)	3
	697B: Empirical Seminar	3
4th year, Fall	Dissertation Units	3
	697B: Empirical Seminar	3
4th year, Spring	Dissertation Units	6
	697B: Empirical Seminar	3
5th year, Fall	Dissertation Units	3
	697B: Empirical Seminar	3
5th year, Spring	Dissertation Units	6
	697B: Empirical Seminar	3
	Total	93

Theory: This student is interested in game theory and mechanism design. The two fields selected by this student are Microeconomic Theory (696R and 696S) and Econometrics (696E and 696F). They take industrial organization to learn about applications and experimental to learn about methods.

	Course Title	Units
1st year	Core courses	24
2nd year, Fall	522B: Econometrics	3
	696E: Econometric Modeling I	3
	696R: Microeconomic Theory I	3
2nd year, Spring	696Q: Industrial Org II	3
	696S: Microeconomic Theory II	3
	696F: Econometric Modeling II	3
3rd year, Fall	696U: Game Theory (PF/A)	3
	696A: Experimental Econ (PF/A)	3
	697I: Theory Seminar	3
3rd year, Spring	696S: Microeconomic Theory II (PF/A)	3
	697I: Theory Seminar	3
4th year, Fall	Dissertation Units	6

	697I: Theory Seminar	3
4th year, Spring	Dissertation Units	6
	697I: Theory Seminar	3
5th year, Fall	Dissertation Units	3
	697I: Theory Seminar	3
5th year, Spring	Dissertation Units	3
	697I: Theory Seminar	3
	Total	87

Experimental/Behavioral: This student is interested in psychological game theory. The two fields selected by this student are Experimental/Behavioral (696A and 696B) and Theory (696R and 696S). They take labor economics because it suits their applications.

	Course Title	Units
1st year	Core courses	24
2nd year, Fall	696A: Experimental Econ	3
	696P: Industrial Org I	3
2nd year, Spring	696B: Behavioral Econ	3
	696I: Labor Econ II (PF/A)	3
	696S: Microeconomic Theory II	3
3rd year, Fall	696H: Labor Econ I (PF/A)	3
	696R: Microeconomic Theory I	3
	696U: Game Theory	3
	697B: Empirical Seminar	3
3rd year, Spring	696B: Behavioral Econ (PF/A)	3
	697B: Empirical Seminar	3
4th year, Fall	Dissertation Units	3
	697I: Theory Seminar	3
4th year, Spring	Dissertation Units	6
	697I: Theory Seminar	3
5th year, Fall	Dissertation Units	3
	697I: Theory Seminar	3
5th year, Spring	Dissertation Units	6
	697I: Theory Seminar	3
	Total	87

Econometrics: This student is interested in developing new estimators for auction data. Their fields are Econometric Modeling (696E and 696F) and Industrial Organization (696Q and 696P).

	Course Title	Units
1st year	Core courses	24
2nd year, Fall	522B: Econometrics	3
	696E: Econometric Modeling I	3
	696P: Industrial Org I	3
2nd year, Spring	696F: Econometric Modeling II	3
	696Q: Industrial Org II	3
	696I: Labor Econ II (PF/A)	3
3rd year, Fall	696W: Energy & Env (Empirical) (PF/A)	3
	696E: Econometric Modeling I	3
	697B: Empirical Seminar	3
3rd year, Spring	696F: Econometric Modeling II (PF/A)	3
	697B: Empirical Seminar	3
4th year, Fall	Dissertation Units	3
	697B: Empirical Seminar	3
4th year, Spring	Dissertation Units	6
	697B: Empirical Seminar	3
5th year, Fall	Dissertation Units	3
	697B: Empirical Seminar	3
5th year, Spring	Dissertation Units	6
	697B: Empirical Seminar	3
	Total	90