

GUIDE TO GRADUATE PROGRAMS IN ECONOMICS

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Graduate study can be a rewarding and challenging experience. Given the wide variety of programs and the diversity of courses offered by a major comprehensive university, however, a prospective student often finds it difficult to select a program of study that best matches his or her interests, foundation skills and long-term career goals. The economics faculty of the University of Alabama is sensitive to the importance of the planning decisions that a student must make early in a course of study and is aware of the limitations of college catalogs in providing information for this planning process.

This **Guide** is designed to answer some of the most frequently asked questions concerning programs in economics. The **Guide** is consistent with and elaborates on the **Graduate Catalog**.

(<http://www.graduate.ua.edu/catalog/index.html>) All graduate students are subject to the provisions set forth in the **Graduate Catalog**. GRE or GMAT scores and the undergraduate GPA are the most objective and accurate predictors of whether a student will be successful in a graduate program. Test scores of 50 percentile or better in both quantitative and verbal and a B average (3.0 out of 4.0) overall, or for the last two years of previous course work, are *minimum* requirements for regular admission to a Master's program. In addition, for international students without a

degree from a U.S. college or university, a minimum Paper-Based TOEFL (pBT) of 550, Internet-Based (iBT) of 79, International English Language Testing System (IELTS) of 6.5 or (Pearson Test of Language Proficiency (PTE) Academic of 59 is required. Students who are admitted can be confident that, with appropriate effort, they have the ability to complete the program.

Students who do not meet these standards may be offered a conditional admission. A note on conditional admissions is provided in the appendix.

Students frequently ask about what kind of preparation is appropriate for graduate study in economics. Some of what is needed is relatively obvious—previous training in economics, at the undergraduate level (up through intermediate micro- and macroeconomics, and beyond), and for the Ph.D., even some graduate coursework may be desirable. In addition to this, the other area that is important is preparation in mathematics. For study at the master's level, certainly a sequence of courses in calculus (both differential and integral) is essential, along with courses in statistics. For doctoral students, additional coursework is highly desirable—a three course sequence of calculus and a course in linear algebra and matrix theory would be a good start. Additional study may be warranted for some students, including a mathematical probability and statistics course (note that this is *not* a basic statistics class, which is mentioned above) as well as higher mathematics, such as real analysis and advanced algebra courses.

Financial Aid

Fellowships and/or assistantships are held by most of the Ph.D. students in our graduate program and by some Master's students. Applicants with test scores

of above the 90th percentile and a GPA of 3.5 or above will be given serious consideration for assistantship funding. A minimum Paper-Based TOEFL (pBT) of 550, Internet-Based TOEFL (iBT) of 79, International English Language Testing System (IELTS) of 6.5 or Pearson Test of Language Proficiency (PTE) Academic of 59 is required. International students who will hold a GTA are required to attend and pass the International Teaching Assistant Program (ITAP) conducted by our English Language Institute. Awards are made competitively on the basis of budgeted funds available. Students meeting the standards of the Ph.D. program who were unable to meet the competitive standard for financial aid before admission to the program are generally offered full assistantships for their second year in the program, but this is always dependent upon the funds available. A second form of assistance is a fellowship, which is a grant that carries no work requirement. They are chosen on a competitive basis by the University's Graduate Council. Based upon recent awards, a GPA of 3.7 and test scores of 95 percentile is necessary to compete for these fellowships. Students are nominated by their department for these prestigious awards.

Assistantships and Time Requirements – Ph.D. Degree

Since three courses plus a half-time assistantship is considered a full load, the typical student beginning with a Bachelor's degree should take at least three years to complete course work and a fourth year on the dissertation. Careful planning and extra work can reduce the time required, and students are discouraged from prolonging the time required beyond four years.

Assistantships require 12 to 20 hours per week as a research, teaching or classroom assistant. Assistantship experience is considered an important and

mandatory part of the academic training in the Ph.D. program and is often desirable in the Master's program.

Students awarded assistantships are required to maintain their eligibility. Generally, the criteria for continued eligibility for Ph.D. students are maintaining a "B" average in course work, active participation in seminars and other activities of the department and passing the qualifying examination. However, renewal of an assistantship is not guaranteed. There are periodic reviews of the student's performance as an assistant, and this evaluation includes performance in course work as well as how well the duties as an assistant have been performed. Decisions concerning renewal are made on a year-to-year or semester-to-semester basis. Assistantships are not usually awarded to students after their fourth year in the program. (More information about these issues can be found the Department's Advising Document.)

Admission standards for Ph.D. programs are somewhat higher than those for the Master's program for students without previous graduate work. Ph.D. applicants with previous graduate work must meet minimum entrance requirements, and other items on the application are generally given greater weight. All else equal, Ph.D. applicants are given preference in assistantship awards.

Noncompetitive financial aid, such as work-study and loans, has generally been available.

ECONOMICS MASTER'S DEGREE PROGRAM

Focus

The economics master's program is designed to provide students with the essential background and fundamental knowledge required to prepare for further graduate work or to embark on entry-level or mid-level positions conducting economic analysis within industry or government. Courses are selected to allow students to be well prepared for these alternatives.

DEGREE REQUIREMENTS

Students may choose to pursue the Master's degree by following one of three different tracks. Each track is designed with a different objective, though the choice of one over the other does not close any option the student may later want to pursue. The degree can be awarded either through the College of Commerce and Business Administration (generally for students with an undergraduate business background) or through the College of Arts and Sciences.

Track I: Ph.D. Preparation

Track I is a program designed to prepare the student for a doctoral program. It mirrors the first year of courses for the Ph.D. in economics at the University of Alabama, and a successful student is able to transition into the Ph.D. program upon completion of the requirements for the Master's degree. Alternatively, this track would be excellent preparation for study in doctoral programs at other universities. This degree program requires 30 hours of course work, as follows:

Required Courses:

EC 570; EC 610; EC 611; EC 616; EC 660; EC 670 and ST 554

In addition to the required courses listed above, students would take 9 additional hours of graduate coursework as electives. These courses should be selected from the available graduate courses in economics or other courses approved by the program committee. These courses can be selected from the following areas: applied microeconomic theory, monetary economics, or public economics. Students may choose either 500 or 600 level courses as their electives. Students in the Ph.D. program may apply for an M.A. degree once they have completed the first year courses, passed qualifying exam, and passed three additional courses.

Track II: Applied Economics

Track II is designed primarily for students who want to prepare for a career in which they apply the skills of economic analysis. These jobs are typically in the private sector, with many students obtaining positions in the financial services industry. This program requires 30 hours.

REQUIRED COURSES –IN SEQUENCE	
EC 570-Introduction to Mathematical Economics (Summer or Fall)	3
EC 508-Microeconomic Theory (Fall)	3
EC 513-Economic Forecasting & Analysis (Fall)	3
ST 521-Statistical Data Management SAS I (Fall)	3
ST 531-Data Mining I (Fall)	3
EC 509-Macroeconomic Theory and Policy (Spring)	3
EC 571-Econometrics (Spring)	3
ST 522-Advanced Statistical Data Management SAS II (Spring)	3
ST 532-Advanced Data Mining (Spring)	3
EC 596-Capstone Project*	3*

*Students may take an elective as an alternative to EC 596 but if this is done the student must take the Comprehensive Exam offered to Ph.D. students. See the discussion below.

Total Hours 30

The set of required courses are designed to enhance a student's understanding of the core concepts in microeconomics and macroeconomics, as well as developing a set of quantitative skills in econometrics and economic forecasting. These skills are

complemented by the four courses in statistics, which are designed to develop and hone the student's understanding of statistical methods, but also the use of the statistics software package, SAS. This package is widely used by organizations in both the public and private sector; the capabilities these courses provide should improve a graduate's career prospects substantially. It is also noteworthy that upon successful completion of the set of statistics courses you will receive a Data Mining Certificate from SAS Institute.

Policy Economics: Track III

The set of courses in this track is designed to enhance a student's understanding of the core concepts in microeconomics and macroeconomics, as well as enhancing the student's skills in understanding and analyzing policy issues. Students also gain quantitative skills through course work in econometrics and economic forecasting.

REQUIRED COURSES –IN SEQUENCE	
EC 570-Introduction to Mathematical Economics (Summer or Fall)	3
EC 508-Microeconomic Theory (Fall)	3
EC 513-Economic Forecasting & Analysis (Fall)	3
EC 500 level elective (Fall)	3
EC 500 level elective (Fall)	3
EC 509-Macroeconomic Theory and Policy (Spring)	3
EC 571-Econometrics (Spring)	3
EC 500 level elective (Spring)	3
EC 500 level elective (Spring)	3
EC 596-Capstone Project*	3

*Students may take an elective as an alternative to EC 596 but if this is done the student must take the Comprehensive Exam offered to Ph.D. students. See the discussion below.

Total Hours 30

Mathematical Economics

Mathematical Economics, EC 570, is required for all tracks in the program. While it is listed as one of the courses in the program, in reality it should be completed prior to their entry into the master's program in the fall. In effect, it should be treated as a prerequisite. For students who have not completed this course, or its equivalent, this class is generally offered both during summer school (in the first summer term) and also as an intensive (3 week) course in August. The intensive course is intended primarily for students entering the Ph.D. program in the fall, but would serve the needs of many master's students as well. Completing Mathematical Economics prior to the fall semester will allow students to complete their degree program in a timely fashion and we strongly urge students to try to complete this course prior to the fall semester.

Comprehensive Examination / Capstone Project

All MA in Economics candidates must pass a comprehensive examination. Track I students will take the Ph.D. qualifying exam and Track II and III students have this option. A discussion of the Ph.D. comprehensive examination can be found below in the section describing the degree requirements for the Ph.D. in economics. An alternative for Track II and Track III students is to take the EC 596 course, the Capstone Project class. Successful completion of this course will substitute for the comprehensive examination.

Most Track II and Track III students will enroll in EC 596 during the spring semester. The primary requirement of the class is the completion of a research paper. The purpose of this paper is to provide an integrative experience for students—the paper would involve the use of the core topics in economic theory, the

econometrics and forecasting skills gained in those courses in conjunction with the statistical skills gained in the statistics courses for Track II students or the analytical skills developed in the policy-oriented courses taken by Track III students. In other words, this class provides a capstone experience to the student's master's degree program.

Course Loads and Time Required for Completion of the Degree.

A full load for graduate credit is 12 hours (4 courses) per semester. The Master's degree is a research-oriented degree, and students are expected to read in the original literature to develop an understanding of research design and theoretical issues.

Students attending school on a full-time basis can usually complete the Master's degree in one calendar year.

ECONOMICS Ph.D. PROGRAM

The Economics Ph.D. program is designed to provide students with the advanced training and substantive knowledge necessary to pursue positions leading to careers in research and teaching at institutions of higher learning, careers in economic analysis and forecasting within the private sector, and careers in public policy analysis within local, state, or federal government.

DEGREE REQUIREMENTS

The Department offers a Ph.D. in Economics through both the College of Arts and Sciences and through the Manderson Graduate School of Business. The degree programs differ according to the courses students take to satisfy the statistics and

quantitative requirements for the Ph.D. through the Manderson Graduate School of Business. This is the program chosen by most students, but a shift from one college to the other can be made after entering the program. The Ph.D. is awarded to students who demonstrate competence in the several parts of the Comprehensive Examination and write a dissertation that demonstrates his or her ability to do independent research. The demonstration of competence requires an understanding of the literature and methodology of economics and the application of this knowledge to research. Another important element of the program at the University of Alabama is the integration of courses in finance into the set of core courses taken by students.

The course work for the Ph.D. is an initial exposure to major contributions in the literature and applications of the methodology. Students acquire competence through study of the literature and development of research skills. The program is designed to develop this competence. The course requirements, in effect, help define the scope of the material to be mastered but are not, in and of themselves, sufficient for the examinations.

Course Requirements

The following courses are required for the Ph.D. in economics. They are listed in the order that they should be taken. Students receiving financial aid are obligated to take these classes in the sequence detailed below. The economics faculty also strongly urges students who are not receiving financial aid to take the courses in the designated sequence.

The First Year

The courses in the first year of the Ph.D. program are designed to provide the student with the theoretical and econometric skills necessary to apply economic theory to practical issues as well as issues of government policy.

SUMMER/FALL
EC 570 Mathematical Economics

FALL
EC 610-Seminar in Microeconomics
EC 611-Advanced Macroeconomic Theory II
ST 554-Math Statistics I

SPRING
EC 660-Game Theory
EC 616-Seminar Monetary Economics
EC 670-Econometrics

Qualifying Exams in May:

- Microeconomics
- Macroeconomics

As a part of the regular sequence in the economics Ph.D. program, students are required to pass a Qualifying Examination, which is administered following the end of their first year of study. The exam is normally offered in May, several weeks after the end of the spring semester classes. The exam is comprised of two parts: microeconomics and macroeconomics. To be eligible to continue in the Ph.D. program, a student must pass both parts of the exam. If a student has successfully passed both parts of the exam by the end of August, the student will be allowed to continue in the Ph.D. program and financial aid, if any, will not be affected.

Students who do not pass one or both parts of the exam when it is administered in May will be given one chance to retake the portion(s) that they

have failed in the second administration of the exam in August. A student who has not passed both parts of the exam will not be allowed to continue in the Ph.D. program, but is eligible to obtain a Master's degree. Students receiving financial aid from the University will be allowed to maintain their aid only until the end of the subsequent fall semester, assuming they have met all of their other requirements.

If a student is absent from an exam, it will be counted as a failed attempt.

The Microeconomics and Macroeconomics Qualifying Examination Committees will usually be composed by the faculty members teaching the core classes, along with the graduate coordinator.

The Second Year

The courses taken during the second year apply economic theory to important fields of study. These classes are designed to prepare the student to do professional quality work on applied research topics and to complete a doctoral dissertation during the third and fourth years. Students receiving financial aid must take all six of the field courses offered during the second year. It is strongly recommended that other students who do not receive financial assistance take these six courses as well. Students should note that the sequence of courses is sometimes subject to change from time to time; the graduate advisor should be consulted to determine the appropriate set of courses to enroll in for each semester.

FALL
EC 631- International Money and Finance
EC 6xx-Applied Micro Course*
EC 671-Seminar: Econometrics

SPRING
EC 676 Advanced Monetary Policy
EC 6xx-Applied Micro Course*
EC 672-Financial Econometric Modeling

*A set of designated applied microeconomics course are offered on a rotating basis

Literature Review

Following the second year of study, a student should begin work on a research paper. This paper will be a critical review of the literature in a particular area of interest to the student. The review will survey a number of published papers in such a fashion that it can be the basis for a dissertation proposal. Students should consult with the instructors of their field courses to select the appropriate papers to review. This paper will be due early in the beginning of the fall semester of the student's third year.

The student's paper will be judged to be acceptable or not acceptable by members of the appropriate field committee. The field committees will consist of *at least* two faculty members. If a paper is not acceptable, the student will be able to modify the paper as part of Economics 698. However, unless a successful paper is submitted by the end of the fall semester, the student will be allowed to maintain their aid only until the end of the subsequent spring semester.

The Third Year

Third and fourth year students must enroll in EC 698, Research in Economics, during both the fall and spring semesters. At the end of each semester, students will make a presentation of their research topic other students in the course.

Fall
Finance Elective

EC 698-Research In Economics
EC 699-Dissertation Research
Spring
Finance Elective
EC 698-Research In Economics
EC 699-Dissertation Research

The Fourth Year

During the fourth year, the student should continue enrollment in EC 698 and at least 6 hours of dissertation research (EC 699) each semester, as well as completing any additional course requirements. It is anticipated that each student will enter the job market during the Fall Semester. Students who expect to succeed in the job market should also have defended their dissertation proposal by the end of the Fall Semester. Ideally, by this point, the student would have two journal-length papers produced in the seminar courses described above. These papers and the hours spent on dissertation research are expected to be adequate for a student to have at least one good paper for the job market as well as one or more additional working papers. To facilitate this, students in EC 698 must make a presentation to the entire faculty by the close of the spring semester of their fourth year. Students who have already completed their dissertation proposal and have had it approved by their dissertation committee may be exempted from this requirement.

To provide additional qualifications, each fourth-year student is expected to teach a minimum of two independent courses during their course of study. A student who has not completed his or her dissertation by the end of the fourth year is expected to (return to campus to) defend a completed dissertation. Students

should have any not expectations of any financial aid beyond the fourth year of study.

Finance Course Requirements

As a part of the Ph.D. program, students are required to complete four graduate courses in finance to broaden their education and offer additional options for a student's career possibilities. Students with no background in finance should enroll in FI 510, Financial Management. In addition, students should enroll in FI 601, Advanced Financial Theory, plus two additional elective courses in finance in consultation with the graduate advisor. The following are a list of possible elective courses in finance:

FI 531-International Finance
FI 512-Money and Capital Markets
FI 514-Investments
FI 515 Quantitative Investment Analysis
FI 519-Financial Engineering

The Dissertation

During the third year, a student should commence their work on a dissertation. Officially this requires the formation of a dissertation committee. Students are transferred from the Program Committee to a Dissertation Committee at this point and formally begin work on the dissertation.

Writing a dissertation is the final test of research competence. It requires an understanding of relevant literature and methodology, and the ability to think independently. The student must find an original topic, plan a test of hypotheses, write and defend at a final oral examination a document acceptable to the Dissertation Committee and to the Graduate School.

Summary and Cautions

Students considering the Ph.D. program should first examine the Master's degree requirements. If entry into graduate work is from an undergraduate program, the most important part of planning is in making sure that the prerequisites have been met. Most undergraduate programs do not require a sufficient background in mathematics and some do not require intermediate theory.

More Information

Students desiring more information or having specific questions should consult with:

Director for Graduate Programs
Department of Economics, Finance and Legal Studies
University of Alabama
P. O. Box 870224
Tuscaloosa, AL 35487-0224
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APPENDIX

Conditional Admission

Students falling below the minimum university admission standards, 3.0 GPA or the 50th percentile, may be offered a Conditional Admission. This will occur if a relatively high rating on one criterion offsets a low score on the other. In addition, other information on the application will be considered in the decision. For example, transcripts are evaluated on the basis of specific grades in quantitative and theory courses, as well as the overall GPA. The GPA for the last two years of undergraduate work is considered if it is higher than the overall GPA. Students who maintain at least a 3.0 GPA in their first 12 hours of course work will have their conditional admission converted to full, regular admission status; failure to maintain a 3.0 average will generally result in dismissal from the program.

The English Language Institute

Since graduate teaching assistants can expect to have contact with students at some point during the duration of their assistantships, most international students awarded assistantships are required to attend and pass the International Teaching Assistant Program (ITAP) conducted by our English Language Institute. The Institute is an orientation program that runs concurrent with the fall and spring semesters.

Job Placement for New Ph.D.'s

Most students graduating with a Ph.D. in economics will find a position at some institution of higher learning. In the last ten years, the types of schools at which our graduates have obtained jobs have varied widely, but include; Eastern Michigan University, University of Texas-El Paso, University of Tennessee-

Chattanooga, State University of New York-Plattsburgh, Florida Gulf Coast University, University of North Florida, Pepperdine University, University of North Alabama. The job market process for new Ph.D.'s in Economics is relatively well organized. Most of the initial interviews occur at professional meetings, and in particular, the annual meetings of the American Economic Association each January. Once the employing school has narrowed the field of applicants, two or three candidates are asked to visit the campus. During this visit the candidate meets with faculty members and presents a seminar. The seminar is usually based on the candidate's dissertation. After evaluating all of the candidates who visit, an offer is made.

The process of finding an academic position begins in the summer of the year prior to the year in which the student wishes to begin working. This long lead-time is associated with considerable uncertainty. A well-prepared resume is most important. If you think you might be looking for a job you should:

1. Send copies of your resume to institutions that list their vacancies in Job Openings for Economists. (This publication is available in our departmental office and is on the Internet.)
2. Attend as many professional meetings of the following associations as possible.

American Economic Association (January)
Southern Economic Association (November)
Western Economic Association (July)

These meetings are held in various locations. Even if the location of meetings is far away and the trip is expensive, active job seekers should file a Professional Application form and attend. If your goal is to be a successful academic

at the best school possible, you should choose courses and a dissertation topic that will enhance those prospects. The best universities expect faculty to publish in quality journals. The prospects to publish in these journals are increased significantly by acquiring the quantitative and statistical tools which are necessary in today's market.

Some students may believe that their only goal is to teach at a small school where publication will not be required. Two factors should be considered. The first is that even smaller schools often place an emphasis on publishing. The second is that students often change their minds. Thus, students are well advised to prepare themselves to meet the standards of the larger schools.

Students who do not speak English as their native language should remember that most of the jobs in this country are teaching jobs. Students must be able to speak English well, and not just well enough to read texts or pass tests, but well enough to be able to explain theoretical concepts to a class of undergraduates who may not be interested in these concepts at all. To acquire this level of skill requires practicing English. In addition, the interested students' capacity to fully participate in class and to pass oral examinations will depend partly on the ability to speak English.

There is a tendency for international students to work with and speak to other students who speak the same language. International students who do not speak English constantly will not learn it well enough to secure a good teaching job. It is much too late to begin acquiring fluency in English at the end of a Ph.D. program. International students who return to their home countries will find English fluency to be a highly valued attribute.