

Guideline for Pursuing a PhD in Economics

A number of undergraduate Economics majors decide to pursue a PhD in Economics. Here we provide you with a (1) guide to preparing for PhD programs, (2) strategy for applying to programs, (3) review of what to expect in PhD programs, and (4) a brief note on your professional life after graduate school, as well as useful linkages.

1. General Admission Requirements / Preparing to Apply

Requirements vary by institution, but admissions committees generally consider the following criteria:

- Quantitative background
- GRE score, especially on the quantitative component
- Letters of recommendation
- Statement of purpose

Quantitative background

Given that PhD courses in economics tend to be quantitative, it is important to have a strong math background. This means you should definitely have taken the following courses before applying to graduate school:

- Multivariable Calculus (MATH 210)
- Linear Algebra (MATH 240)
- Empirical Analysis in Economics (ECON 410).¹

Other courses that are helpful but are not required are:

- Real Analysis (MATH 370)
- Differential Equations (MATH 230)

Admissions committees look for evidence that applicants will be able to handle the math-intensive nature of graduate economics courses. The best way you can demonstrate this is by getting good grades in the courses listed above.

GRE Scores

Most first and second tier graduate programs generally expect at least 750 out of 800 (top 10%) in the quantitative section of GRE. There are no such expectations for the verbal and analytical sections of the GRE (although getting good scores in these sections will not hurt).

Recommendations

Usually three letters from professors in your math and economics courses; letters from employers are not considered relevant.

Statement of Purpose

Most schools expect you to submit a 1-2 page essay describing your research interests and career objectives. The admissions committee will evaluate the essay based on whether (a) your research interests coincide with the program's strength, and (b) you are interested in pursuing a career related to economics. Admissions committees usually consist of faculty members, so there is a marginal preference for

¹ ECON 410 may be also substituted by courses in Probability (MATH 311) and Statistical Inference (MATH 312).

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applicants who are interested in an academic career after graduate school (i.e. those who are interested in teaching economics at the undergraduate and/or graduate level).

2. Strategy for Applying to PhD Programs

The admissions process tends to be somewhat unpredictable, so it is important to apply to 8 to 10 schools that range from 'long-shots' to 'backups.'

Start working on your applications early, since deadlines tend to be between December and February. This means studying for the GRE over the summer between your junior and senior years and giving sufficient time to your professors to write your recommendation letters.

There is no separate application for financial aid; most PhD programs waive tuition and provide a monthly stipend for assisting a professor or teaching a principles class.

Most economics Ph.D. programs do not have a terminal Masters program, do not require a Masters degree for admission, and will not accept students who indicate they want to pursue a Masters degree rather than a PhD. You will receive a Masters degree if you successfully complete your first year in the program.

3. What to Expect in Graduate School

Summer before classes start

Some schools offer a math refresher course during the summer before school starts, others do not do this. If your school belongs to the latter category, you can brush up your math skills by working through one of the following books:

- *Mathematics for Economists* by William Novshek
- *Fundamental Methods of Mathematical Economics* by Alpha C. Chiang

Coursework

First year students usually take foundations courses in macroeconomics, microeconomics and econometrics, and then sit for a written qualifying exam at the end of the academic year. In their second and third years, students usually take courses in two or more fields that they select (e.g. labor economics, international trade, macroeconomics, public economics, etc.) plus other courses that will support their work in those fields. Students then take a set of exams after their second year that test their knowledge in two primary fields they have selected.

Dissertation

Once graduate students are done with their courses, they develop a research project that either explores a question that nobody has answered before or addresses the question in a unique way (with different empirical techniques, new data, a new model, etc.). They do this with an advisor who can guide them during the process (usually a professor who works in the field and taught you one of the courses in the field). This is the most intellectually rewarding phase of graduate school, but it is also very easy to lose focus during this stage (since there are no more classes). A dissertation typically takes 1-2 years to complete and requires consistent effort on a regular basis.

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All together, students take four to six years to finish graduate school.

Teaching Commitments

Many schools expect graduate students to teach a few classes or serve as teaching assistants for faculty members. This is an ideal preparation for graduate students who are interested in pursuing an academic career.

4. Life after graduate school

One of the best things about earning a PhD in economics is that it gives you a wide range of career options. Most economics PhDs choose an academic career in a large research university, small teaching college, or somewhere in between those two extremes (this is where most of the jobs are). Others work for the government (e.g. Federal Reserve), private sector (e.g. consulting), and international organizations (The World Bank, IMF, etc.)

Resources

- Admission profiles of applicants to economics Ph.D. programs (as well as admissions guide)
<http://www.econphd.net/decision04.xls>
- Rankings of Economics Ph.D. programs
<http://grad-schools.usnews.rankingsandreviews.com/grad/eco/search>
<http://www.chrissilvey.com/gradschoolrankings.html>
- Mankiw's advice for aspiring economists
<http://gregmankiw.blogspot.com/2006/05/advice-for-aspiring-economists.html>