

To MA Economics Students Who Plan to Apply to PhD Programs in Economics
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The MA Economics degree is a significant factor in your admission to a good PhD program in economics. Some European programs will let you go straight to the thesis stage if you already have a master's (a doctoral thesis should take you about three years to write). A US or Canadian program, and programs elsewhere that are modeled on the US system, will require you to take another two years of coursework prior to the thesis stage (and may award another master's if you do not complete the PhD subsequently). In these cases, the MA from CSUEB provides you with the opportunity to get into, and succeed in, a much better program.

The importance of this cannot be stressed enough: your job prospects with a PhD depend greatly on where you graduated. This is why investing two years into a good master's prior to applying for the PhD is a time-honored and wise strategy, unless you are already extremely well-prepared. Specifically, to get into a top US PhD program without a master's, you need to have a BA degree with nearly perfect grades from a top university, including advanced coursework in economics and mathematics, a nearly perfect GRE score, and enthusiastic recommendation letters from well-known professors. Doing a master's first allows you to improve your GPA, demonstrate in graduate-level courses that you can handle the technical demands of a PhD curriculum, work on your GRE and perhaps a research paper, and interact much more closely with professors who can effectively support your application and advise you. In addition, if you change your mind about the PhD, a terminal master's qualifies you for other careers in economics, without the stigma of having dropped out of a PhD program.

A PhD application is typically accompanied by the GRE score (what matters is the quantitative section, where you should be well above the mean of 160 for economics), your transcript (which should show advanced economics courses and multivariate differential and integral calculus, linear algebra, probability and statistics, and ideally real analysis, all taken in the math department), three recommendation letters (from economics professors), and a statement of purpose (in the UK, this takes the form of a research proposal and is more important). Optionally, you can include a writing sample, which should be brief and display technical ability (some UK programs require it).

Most PhD programs only admit new students for entry in the fall semester (and, if not, fall entrants are usually prioritized for scholarships). The deadlines for PhD applications range from the end of November to the beginning of January for the best US and Canadian programs (later for less prestigious ones), expect to be notified of outcomes in April or May. Many European programs have deadlines between February and April. (Note that, particularly in the UK, you may have to apply for funding externally and meet separate deadlines for that, but most programs consider you for scholarships parallelly to admission.) This means that you could apply at various points of the second year of your MA, depending on which programs you are interested in. The CSUEB fall quarter ends in mid-December, the winter quarter at the end of March, the spring quarter in mid-June.

In the first year, you should therefore aim to complete most of the core (ideally, the micro sequence, macroeconomics, and econometrics) as well as two electives that could be mathematics courses (such as a real analysis and a probability / statistics class). This signals most effectively your ability to handle graduate-level economics. However, another consideration is taking classes with economics professors who will be strong letter writers. Generally, the more research-active the professor, the more weight his or her recommendation will carry. You might want to prioritize taking one or two economics electives in the first year to get exposure to particular faculty members. Since you will be well into the fall or winter semester of your second year by the time you apply, you can take mathematics courses at that time and send updated transcripts in December or March, while your application is being reviewed – but you cannot send updated recommendation letters.

The MA Economics program is, as the name says, an economics degree that is based on credits in economics. The graduate advisor approves or denies requests to take courses outside economics as electives. The criterion I will apply is that such a course must “complement in content in rigor” the graduate economics courses you are taking: it has to connect with topics in your core or economics electives in a way that advances your understanding of these topics. It is up to you to make the case to me in writing (an e-mail suffices), by researching the syllabus of the course you intend to take and telling me about its connection to two or three topics you already covered (or cover concurrently) in your coursework in the economics department. This forces you to familiarize yourself with the external course, so that we make an informed decision.

If you need to take remedial courses (such as basic calculus, linear algebra, or statistics), you must do so outside the MA program, as additional credits, since I will not approve them. The same applies to courses that are so advanced that the connection with economics is not immediate (say, abstract algebra). This does not mean that we discourage such coursework, only that you should think of it as an extra effort to strengthen your background that goes beyond the MA program. Depending on your goals, you may in some cases wish to substitute electives from non-math disciplines, e.g. business or political science. I would caution, however, that these are generally not helpful in preparing you for the economics PhD, and they do have to be at an appropriate analytical level to count toward the MA. In your proposal, explain which techniques you will master in those courses that can be applied to economic issues.

PhD programs also like to see evidence that you are capable of independent scientific writing. You are welcome to approach faculty members to discuss ideas, in fact this is the best way for us to get to know you and write a specific, unequivocal recommendation letter in the future. The initiative should come primarily from you, even if you end up co-authoring a paper, so that the results can be attributed to you. Having a single- or co-authored working paper, possibly in submission to a journal, can boost your application substantially. Be aware, however, that the standards for good publications in economics are very high and take immense time and effort to meet. Very few students enter graduate school with a paper to their name that can publish well. (Publication itself is almost

impossible by the time you apply, since the review and revision process can take years, and is likely to involve many initial rejections.) Even at the completion of the PhD, most economists do not have any publications; the expected time is while they are assistant professors.

General MA Program Requirements

There is a preliminary hurdle you have to clear to become a “classified graduate student.” Basically, it comes down to satisfying the University Writing Skills Requirement, which can be done in a couple of ways: 1) BA from the CSU system; 2) score of 4.5 or higher on the GRE analytical writing section; 3) pass the university’s Writing Skills Test in one of two tries with “Clear Competence;” 4) provided you took the Writing Skills Test and scored “Developing Competence,” enroll in a second-tier writing course (ENGL 3003, SCI 3010, MKTG 3495) and get at least a C-; 5) take and pass ENGL 3000 (native speaker) or ENGL 3001 (non-native speaker).

With this out of the way, you “advance to candidacy” by completing at least 12 quarter units in economics at CSUEB toward your MA degree (at least 8 must be graduate level, i.e. course numbers 6100-6999). You should take a core course in micro, macro, and econometrics as soon as possible (i.e. start with ECON 6101, ECON 6105, ECON 6400); these are offered in the fall quarter. Aim to complete the other core courses (i.e. ECON 6102 and ECON 6511) in the first year. After you have passed the core courses, take the comprehensive exam to qualify for the MA degree route (if you fail it twice, you can still get a Graduate Certificate upon completion of all coursework).

To graduate, you need to complete, within five years, 45 quarter units with at least a C in each course and a 3.0 GPA overall (32 of these credits must be in residence at CSUEB while enrolled in the program, 28 from courses with numbers 6100-6999). So, beyond the core (20 credits) and the required course in Research Methods (ECON 6896, 5 credits), you will take five additional graduate courses toward your MA. A maximum of four can be outside the economics department, subject to approval from the graduate advisor.

Relevant Courses Offered in the Math and Stats Departments at CSUEB

The University of Wisconsin’s economics website discusses mathematics expectations for the PhD in a bit more detail: http://www.econ.wisc.edu/grad/math_reqs.html.

Essential: I view these courses as remedial, rather than complementary, to the MA. If you plan to apply for the PhD and do not yet have this background, you should make up for these deficiencies by taking additional credits that will not count toward the MA.

Calculus I-III (MATH 1304, 1305, 2304), Elements of Linear Algebra (MATH 2101), Introduction to Probability Theory I-II (STAT 3401, 3402), Statistical Inference I-II (STAT 3502, 3503)

Additional: These courses build useful mathematical skills that add something to your candidate profile, but are not close enough in content to the MA to count for credit.

Introduction to Abstract Mathematics and Proofs (MATH 3000), Mathematical Modeling (MATH 3865), Calculus IV (MATH 2305), Linear Programming (MATH 3841), Topics in Optimization (MATH 4841)

Related: Classes that give you an advanced technical perspective on material covered in the MA and let you demonstrate directly relevant mathematics background that will carry weight with admissions. If you already have the essential background, but nothing more, I would recommend taking Analysis I-II, Probability Theory, and perhaps Statistical Theory. Real analysis and its extensions (such as probability) are the main thing people will look for in assessing whether your mathematics background is merely adequate (has the essentials) or strong.

Micro Analysis I-II (MATH 3300, 3301), Theory of Functions of a Real Variable (MATH 4350), Introduction to Topology (MATH 4360), Real Analysis (MATH 6350)

Macro Differential Equations (MATH 3331), Numerical Analysis I-II (MATH 3750, 4750), Introduction to Stochastic Processes (STAT 4401), Advanced Stochastic Processes and Simulation (STAT 6310)

Metrics Linear Algebra (MATH 3100); Probability Theory (STAT 4412 or STAT 6204), Advanced Probability I-II (STAT 6401, 6402); Statistical Theory (STAT 6205), Advanced Statistical Inference (STAT 6304), Mathematical Statistics I-II (STAT 6501, 6502); Theory and Application of Regression (STAT 6509); Statistical Time Series Analysis (STAT 6555)

Admission Deadlines

For your orientation, below is a listing of the most recent (typically 2012) admission deadlines for the best PhD programs in economics. I have tried to categorize them roughly by prestige in the job market for Assistant Professors. There is little disagreement that the two leading departments in the world are Harvard and MIT (at about the same level), and the best ten to thirty departments (depending on whom you ask) are all in the United States. Some business schools associated with top universities also confer an economics PhD. While there are some good European programs (that work a lot like US programs, e.g. the language of instruction is invariably English), it still tends to be the case that their graduates are less likely to find jobs in the US (if that is your goal). The best PhD programs in Australia-New Zealand and East Asia are primarily oriented toward the local job market.

Top US Programs Graduates are typically placed in very good jobs, are routinely considered by the top universities and leading private / public sector employers.

Harvard University 12/3 (**Harvard Business School** 12/3, **Kennedy School of Government** 1/2)

Massachusetts Institute of Technology 12/15
Northwestern University 12/15 (**Kellogg School of Management** 12/31)
Princeton University 12/1
Stanford University 12/11 (**Stanford Graduate School of Business** 12/1)
University of California, Berkeley 12/4
University of Chicago 12/28 (**Booth School of Business** 1/1)
University of Pennsylvania 12/15 (**Wharton School of Management** 12/15)
Yale University 12/15

Excellent US Programs Graduates often place well, are on the radar of the top universities and leading private / public sector employers.

Boston University 1/2
Brown University 12/15
California Institute of Technology 12/15
Carnegie-Mellon University 1/15
Columbia University 12/15
Cornell University 1/15
Duke University 12/8
New York University 12/18 (**Stern School of Business** 1/10)
Pennsylvania State University 1/15
University of California, Los Angeles 12/1
University of California, San Diego 12/14
University of Michigan, Ann Arbor 12/15
University of Minnesota, Twin Cities 12/13
University of Rochester 1/2
University of Toronto 12/15
University of Wisconsin 12/5
Washington University St. Louis 1/15

Very Good US Programs Graduates sometimes obtain good placements, but except for some outstanding students are not normally considered by the best employers.

Boston College 1/2
Georgetown University 1/1
Johns Hopkins University 1/6
Michigan State University 12/14
Purdue University 2/15
University of Arizona 1/21
University of California, Davis 12/15
University of Illinois, Urbana-Champaign 1/1
University of Iowa 1/15
University of Maryland, College Park 1/15
University of Pittsburgh 1/15
University of Southern California 12/1
University of Texas, Austin 1/1

Good US Programs Graduates might land academic positions, but generally have difficulty competing for the popular jobs, usually end up in the private / public sector.

Arizona State University 1/15
Florida State University 2/15
George Mason University 2/1
Indiana University 1/15
Iowa State University 1/31
Ohio State University 11/30
Rice University 1/15
University at (SUNY) Buffalo 2/1
University of California, Irvine 1/15
University of California, Santa Barbara 11/30
University of California, Santa Cruz 1/15
University of Colorado, Boulder 12/1
University of North Carolina, Chapel Hill 1/8
University of Notre Dame 12/31
University of Virginia 1/15
University of Washington, Seattle 12/15
Vanderbilt University 1/15

Less Prestigious US Programs Graduates may have rather limited job options, but will usually find some kind of satisfactory employment.

American University 1/15
Auburn University 3/1
Binghamton University (SUNY) 2/1
Brandeis University 1/15
City University of New York, Graduate Center 2/1
Claremont Graduate University 2/1, 4/1, 11/1
Clark University 2/1
Clemson University 1/15
Colorado State University 2/15
Drexel University 1/25
Florida International University 4/1
Fordham University 4/1 (rolling)
George Washington University 1/5
Georgia Institute of Technology 2/15
Georgia State University 2/15
Howard University 1/15
Indiana University-Purdue University Indianapolis 1/15
Kansas State University 1/1
Lehigh University 12/15
Louisiana State University 2/15
Middle Tennessee State University 3/31
Mississippi State University 3/1
New School for Social Research 1/15, 11/15 (then rolling)
North Carolina State University 1/1

Northeastern University 2/1
Northern Illinois University 5/1
Oklahoma State University 3/1
Rutgers University 1/15
Southern Illinois University 5/1
Southern Methodist University 5/1
Stony Brook University (SUNY) 1/15
Suffolk University 3/15 (then rolling)
Syracuse University 2/1
Temple University 1/15, 11/15
Texas A&M University 12/15
Texas Tech University 1/15
University at (SUNY) Albany 2/15
University of Alabama, Tuscaloosa 1/15, 6/1
University of Arkansas, Fayetteville 1/15
University of California, Riverside 1/5
University of Connecticut, Storrs 2/1
University of Delaware 2/15
University of Georgia 1/4 (rolling)
University of Hawaii, Manoa 1/15
University of Houston 2/1
University of Illinois, Chicago 1/1
University of Kansas 2/1
University of Kentucky 2/1
University of Massachusetts, Amherst 1/15
University of Miami 2/1
University of Mississippi 3/1
University of Missouri, Columbia 12/15, 10/1
University of Missouri, Kansas City 1/15, 9/1
University of Nebraska, Lincoln 3/1, 10/1
University of Nevada, Reno 4/15, 10/15
University of New Hampshire 4/15
University of New Mexico 3/1
University of North Carolina, Greensboro 2/15
University of Oklahoma 1/15
University of Oregon 2/15
University of South Carolina, Columbus 12/15
University of South Florida 1/31
University of Tennessee, Knoxville 2/1
University of Texas, Dallas 4/1
University of Utah 2/1
University of Wisconsin, Milwaukee 12/1
University of Wyoming 2/1
Virginia Tech 1/15
Washington State University 1/10
Wayne State University 5/1, 9/1, 1/1

West Virginia University 3/1
Western Michigan University 2/15

Top European Programs While the variance in placement outcomes is generally greater in Europe than in comparable US departments, individual students from these programs may do very well on the US job market.

London School of Economics (UK) 1/7 (preferably apply early)
Oxford University (UK) 1/18, 3/8 (requires writing samples)
University College London (UK) 1/13

Established European Programs These are well-run and well-funded programs that achieve strong placements for their students within Europe, and in some cases in the US.

European University Institute (Florence, Italy) 1/31
Paris School of Economics (Paris, France) 3/1, 5/27
Stockholm School of Economics (Stockholm, Sweden) 2/1
Tilburg University (Tilburg, Netherlands) 2/1
Tinbergen Institute (Amsterdam / Rotterdam, Netherlands) 2/1, 4/1
Toulouse School of Economics (Toulouse, France) 3/15
Rheinische Friedrich-Wilhelms-Universität Bonn (Bonn, Germany) 4/30
Universidad Carlos III de Madrid (Madrid, Spain) 1/31, 4/20
Universitat Autònoma Barcelona (Barcelona, Spain) 6/1 (rolling)
Universität Mannheim (Mannheim, Germany) 4/15
Universitat Pompeu Fabra (Barcelona, Spain) 4/12
Universität Zürich (Zurich, Switzerland) 1/31
Université Catholique de Louvain (Louvain, Belgium) rolling
Université Libre de Bruxelles (Brussels, Belgium) 3/31
University of Cambridge (Cambridge, UK) 12/12
University of Warwick (Warwick, UK) 2/15

Promising European Programs While these programs are newer and do not have a long track record of placement success, they have created a strong infrastructure with good funding for PhD students.

Goethe Universität Frankfurt (Frankfurt, Germany) 2/1, 5/1, 6/15
Humboldt Universität Berlin (Berlin, Germany) 3/31
Ludwig-Maximilians-Universität München (Munich, Germany) 4/30
Sciences Po (Paris, France) 2/1, 5/18
Università Bocconi (Milan, Italy) 2/1
Universität Wien (Vienna, Austria) 1/31, 4/30
University of Edinburgh (Edinburgh, UK) 1/31, 3/31, 6/15
University of Essex (Essex, UK) 3/27
University of Glasgow (Glasgow, UK) 4/17