

## Advising Sheets for Students Interested in Graduate Study in Economics

The Department of Economics educates critical thinkers as part of a program embedded in the liberal arts. Some students may wish to continue their study of economics at the graduate level. This document will help you shape your studies in preparation attending graduate school in Economics.

The American Economic Association has a [website](#) that “addresses questions typical of individuals interested in graduate study of Economics.” You should read this material and talk to a faculty member in the Department of Economics if you have questions about graduate study in Economics. They will be able to help you consider the program that is a best fit given your areas of interest in Economics.

In terms of recent Economics majors or minors in the Department of Economics, our students have attended a wide variety of programs. In the past 15 years, graduates have pursued doctoral degrees in Economics, applied Economics, finance, or agricultural Economics.

The University of Minnesota (Economics and Applied Economics) – several.

The Ohio State University (Economics)

The Ohio State University (Agricultural, Environmental, and Development Economics)

The University of California – Santa Cruz (Economics)

The University of Southern California (Finance)

The University of Arizona (Economics)

The University of Notre Dame (Economics)

The University of South Florida (Economics)

The University of Kentucky (Agricultural and Environmental Economics)

SUNY - Buffalo (Economics)

While students will find graduate admissions competitive, we believe that our undergraduate program does an excellent job preparing students for graduate studies in Economics and related fields.

Below you will find the following:

- Suggestions for your undergraduate curriculum in Economics and supporting fields.
- A brief discussion of the pre-requisites for graduate studies in Economics and some general advice.
- A listing of the top programs in various fields of Economics.

### Required Courses in the Economics Major

MATH 124 - Probability and Statistical Inference

MATH 119 Calculus I (For pre-graduate studies, this course is right place to start.)

ECON 332 - Microeconomic Theory

ECON 333 - Macroeconomic Theory

ECON 334 - Quantitative Methods in Economics

ECON 384 - Advanced Research in Economics

Topics Courses:

Option 1: Four Tier III Courses (ECON 350 or higher)

Option 2: Three Tier III Courses (ECON 350 or higher) and one Tier II Course (300-350)

Below are suggestions that might appropriately prepare you for graduate studies in Economics. We encourage you to sample widely in your curriculum both inside and outside of Economics to enhance your creativity, clarity, and breadth of thought. *Note that graduate study in Economics is intensely mathematical and thus requires a substantial investment in mathematics and other quantitative courses.*

<b><i>Courses for the Economics Major and Preparation for Graduate Study in Economics</i></b>	
ECON Tier II	All courses
ECON Tier III	All courses; be sure to include ECON 350 – Econometrics
<b>Highly Recommended Complementary Courses for Competitive Application to Graduate Studies in Economics or Finance</b>	
MATH	MATH 120 - Calculus II MATH 239 – Linear Algebra MATH 241 - Foundations and Structures of Mathematics. MATH 305 – Multivariable Calculus MATH 337 - Differential Equations MATH 345 – Mathematical Statistics I
<b>Other Courses That Could Be Beneficial Depending on the Type of Graduate Studies Pursued</b>	
MATH	MATH 315 - Operations Research MATH 318 - Applied Statistical Models. MATH 339 - Mathematical Modeling MATH 343, 344 - Analysis I and II MATH 346 - Mathematical Statistics II
CSCI	CSCI 150 Introduction to the Science of Computing (NS) CSCI 160 - Problem Solving, Programming and Computers CSCI 200 - Abstraction, Data Structures and Large Software Systems CSCI 331 – Database Systems
ACFN	ACFN 111 - Accounting Principles I **If you have interest in doctoral studies in finance, you would also be recommended to take some additional courses to provide you with more foundation and understanding of the relevant questions in finance research. Some courses of relevance to those interested in doctoral training in finance would include. ACFN 310 – Corporate Finance ACFN 315 – Investments ACFN 320 – International Finance ACFN 362 – Current Issues in Finance
Other Supporting Courses	ENGL 211 - Writing Well <b>For Students with Interests in Behavioral Economics</b> PSYC 111 – Introduction to Economics PSYC 331 – Cognitive Processes PSYC 350 – Social Psychology <b>Other Suggestions</b> Courses in history, political science, sociology, and peace studies will also provide excellent foundations and context for further study in Economics when couple with rigorous quantitative and Economics training. Seek out supporting common curriculum courses that might help to provide context for your future studies in economics.

## Applying for Graduate Study in Economics

The advice below is based primarily on observation and knowledge of the faculty in the Department of Economics at CSB|SJU. A great website maintained by the American Economics Association is at the following URL: <https://www.aeaweb.org/students/GraduateStudy.php>.

### *Some Advice and Suggestions for Successful Preparation*

1. One general piece of advice, from an economist's perspective, is that students should understand that doctoral training in Economics is not always the best route even for students who are excellent undergraduate students in Economics. The focus of Economics training is mostly on further developing analytical and quantitative skills so that you can go on to conduct independent research and contribute to the field of Economics in the public, private, or educational sectors. While many economists do go on to careers in teaching and administration, the focus in graduate school is on the research. If that is not something about which you have passion, doctoral training in Economics is not the ideal direction for you.
2. To obtain entry and signal your desire for graduate study in Economics, following are some good ideas aside from majoring in Economics itself. Note, these guidelines are written with the thought that students will apply to top-100 programs in Economics or related fields. There are many other good programs, with less rigorous admissions standards that might also be appropriate, but be sure to do your homework so that you go somewhere the educational experience and opportunities provided are sufficient to open up strong future career opportunities.
  - a. Grades: You will find that a 3.5 G.P.A. would be a minimal standard for admissions, and candidates with G.P.A.'s higher than 3.75 have a much stronger chance for both admission and funding in graduate school. Even then, the market is highly competitive, and a 3.75 G.P.A. in the era of grade inflation might often be insufficient if one is competing for a slot at the very top schools.
  - b. Mathematics Training: Solid mathematical training has become essential for admissions to many top graduate programs in Economics. Not every good program in the United States has such expectations, but this is increasingly important. The courses listed under "highly recommended" are good starting point, but for top programs, you would also want to consider at least taking Analysis I and other mathematics courses.
  - c. Undergraduate Research: Engaging in a significant undergraduate research project is an important signal of your interest in research and ability to conduct it at the undergraduate level. While ECON 384 is an important part of the undergraduate major in Economics at CSB|SJU, if you wish to pursue doctoral studies, it would also be worthwhile for you to consider completing an honors thesis that would involve a year-long thesis writing process. In and of itself, this can be a rewarding process, but it also will help you to distinguish yourself in the application market, especially if you take the opportunity to present your research at an appropriate outlet (e.g., Midwest Economics Association or other association meetings) while you are studying. N.B. The Economics department at CSB|SJU has a summer research fellowship for students interested in pursuing independent research in the summer prior to their senior year so that they can invest significant amounts of time in beginning their research process.
  - d. GRE scores – The GRE is an important test in the admissions process to doctoral programs in Economics and applied Economics. To be reasonably competitive for top 25 programs in Economics, you would need at least the 80<sup>th</sup> percentile on the verbal section and the 90<sup>th</sup> percentile on the quantitative section. These scores would need to be coupled with excellent undergraduate grades and other attributes to put you in a good

position to receive funding as well at these programs. Many graduate programs will publish the average scores and grades of admitted students.

- e. An M.S. or M.A. program prior to pursuing a Ph.D. program: Suppose you are quite interested in pursuing doctoral studies in Economics or Applied Economics but do not feel that you have demonstrated a strong enough undergraduate record or GRE scores to gain admissions to a program you feel appropriate to your interests. There are some M.S. and M.A. programs in Economics or applied Economics that can provide such additional quantitative training and thus make you more competitive for certain doctoral programs in Economics. While completing such degrees, you can pick up additional mathematics coursework and gain further research experience. A recent graduate had difficulty gaining direct admission to graduate school of his choosing because of relatively low GRE score and one relatively weak performance in a mathematics course. He gained admissions to a respected international M.S. program, and after completing that program and getting a year of experience, he was able to gain admission to top-25 graduate programs in Economics. If a career in Economics is really for you, this is often a way to signal your sincere interest and seriousness about these studies.
- f. While many graduate programs provide funding either for students seeking research assistantships or teaching assistantships, there may be outside funding sources. One such, highly competitive source is the National Science Foundation. If you are interested, please check the following link to read more:  
[http://www.nsf.gov/funding/pgm\\_summ.jsp?pims\\_id=6201](http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=6201). While these funds are highly competitive, simply applying for them is a signal of your interest and determination to engage in graduate studies in Economics. Other details on funding opportunities can be found at the following:  
<https://www.aeaweb.org/gradstudents/Funding.php>.

### **The Application Process**

1. If you intend to apply for doctoral studies and attend immediately upon graduation, try to narrow down the schools to which you wish to apply by September of your senior year. It might be good to have discussions with faculty about the right schools for you in the spring of your junior year. Try to keep this list to a reasonable number of well-researched programs, say 7 or 8. The goal is to gain admissions to a program that makes sense for you given your goals and not simply to attend whatever program admits you.
2. Plan on taking your GRE's either in the summer between your junior and senior year or very early in the fall. To succeed on these examinations requires significant preparation and practice. If you consider that applications for graduate study in Economics in the United States are coming from students around the globe, you should recognize that they will all treat these scores as "high stakes" and will be studying accordingly.
3. You will need at least three recommenders for most graduate programs. To help your recommenders, you are encouraged to contact your recommenders by late September or early October to secure their agreement to support your application. Presumably, you will want recommenders who can speak to your academic skills, research skills, and other positive attributes. If possible, you should inform your recommenders of the schools you will be applying to and provide the deadlines to them by the end of October. Generally speaking, most schools have an electronic recommendation process now, and you will need to submit or start your application before your recommender will receive official information that you have applied; therefore, knowing that you are applying and the deadlines will help your recommenders. Keep in mind that writing recommendations is

time consuming, and by keeping your recommenders informed, you are helping them to manage that work.

4. While you may have excellent grades, solid GRE scores, have completed undergraduate research, and have other significant accomplishments, it is also important that you treat the “statement of purpose” or other essays with care and thoughtfulness. You are competing with other excellent students from around the world, and a carelessly written essay may be the difference between getting admitted and not or getting funded or not.
5. Graduate programs might have other forms that need to be completed. You should take all due care in completing these accurately and appropriately.
6. One important DON'T of the application process is the following. It would normally be inappropriate for you to contact faculty members in the departments to which you are applying. They have busy schedules, and even if you are admitted, your access to them will often be more limited than what you might have experienced at CSB|SJU. There are certainly exceptions when it comes to working with your dissertation advisors or with instructors, but to contact them during the application process would not be seen favorably.

### **Graduate Programs in Economics, Applied Economics, and Business Economics**

There are three general ways in which students can get into the study of economics at the doctoral level. Traditional economics programs are often in the schools of liberal arts at major universities, although they are occasionally in other schools such as public policy. Another approach is to consider graduate studies in Applied Economics (sometimes also called Agricultural Economics, Environmental Economics, or other related fields.) These programs also provide good training in Economics, especially when allied with a top traditional program in Economics. Finally, some top universities have programs of Economics in their business schools, and these programs, while also very competitive, are also worth further consideration. Programs of particular note would include Stanford's Graduate School of Business, Chicago's Booth School of Business, Harvard's School of Business, and the Wharton School at the University of Pennsylvania. Below is a ranking of various schools in various fields of study in Economics based on their research output. Rankings, in and of themselves, may say nothing about the mentorship and quality of the graduate school experience, but this information should give you a good starting point. Some advice on selecting the “right” school for you would be the following.

1. What is the publication record of the faculty in your area of study? (See tables below for rankings).
2. What is the placement record of the doctoral program? This information can be found on department websites.
3. What is the average GPA of admitted and funding students?
4. Is there someone or a group of individuals in the program who you think could be a good mentor for you? This might change once you are admitted, but it's a good idea to think about this matter in advance. Your doctoral mentor can have a big impact on your future career.

Econometrics		Microeconomic Theory		Macroeconomics	
1	Yale U	1	Northwestern U	1	Harvard U
2	London School of Economics (LSE)	2	U Pennsylvania	2	Princeton U
3	U Chicago	3	New York U (NYU)	3	U Pennsylvania
4	U California - San Diego	4	California Institute of Technology (Caltech)	4	New York U (NYU)
5	U California - Berkeley	5	U California - Los Angeles	5	U California - Berkeley
6	Northwestern U	6	Stanford U	6	Massachusetts Institute of Technology (MIT)
7	Massachusetts Institute of Technology (MIT)	7	Harvard U	7	Columbia U
8	U Rochester	8	U Chicago	8	U Chicago
9	Michigan State U	9	U California - Berkeley	9	U California - Los Angeles (UCLA)
10	Brown U	10	Princeton U	10	Stanford U
11	Princeton U	11	U Wisconsin - Madison	11	Northwestern U
12	Ohio State U	12	Boston U	12	London School of Economics (LSE)
13	U Pennsylvania	13	Columbia U	13	U Texas - Austin
14	Texas A&M U	14	U California - San Diego	14	Warwick U
15	U Southern California	15	U Illinois - Urbana-Champaign	15	Boston U
16	Boston College	16	Yale U	16	U Rochester
17	Rice U	17	Cornell U	17	Indiana U
18	U Illinois - Urbana-Champaign	18	Brown U	18	Cornell U
19	U North Carolina - Chapel Hill	19	London School of Economics (LSE)	19	U Minnesota
20	Harvard U	20	Arizona State U	20	Rutgers U
21	U Texas - Austin	21	U Rochester	21	U California - San Diego
22	New York U (NYU)	22	U Arizona	22	U California - Davis
23	U Cambridge	23	Penn State U	23	U Wisconsin - Madison
24	Boston U	24	Texas A&M U	24	Duke U
25	Oxford U	25	University College London	25	U Michigan - Ann Arbor
26	U Michigan - Ann Arbor	26	Massachusetts Institute of Technology (MIT)	26	Georgetown U
27	Duke U	27	U Pittsburgh	27	U British Columbia
28	Cornell U	28	U Essex	28	Yale U
29	Washington U St Louis	29	U Minnesota	29	U Maryland - College Park
30	Johns Hopkins U	30	U Texas - Austin	30	U Washington
31	U Maryland - College Park	31	Ohio State U	31	Arizona State U
32	U Montreal	32	U California - Davis	32	U Cambridge
33	U Iowa	33	U Michigan - Ann Arbor	33	U Virginia
34	U California - Los Angeles (UCLA)	34	Johns Hopkins U	34	Ohio State U
35	U Wales - Cardiff	35	U Cambridge	35	U Iowa
36	U Bristol	36	U British Columbia	36	U Southern California
37	North Carolina State U	37	Carnegie Mellon U	37	Carnegie Mellon U
38	U Wisconsin - Madison			38	Johns Hopkins U
39	Monash U			39	Queen's U
				40	Brown U

Labor and Consumer Economics		IO/Business Economics		Public Economics	
1	Harvard U	1	Harvard U	1	Harvard U
2	U Chicago	2	U California - Berkeley	2	U Chicago
3	Massachusetts Institute of Technology (MIT)	3	U Chicago	3	Princeton U
4	U California - Berkeley	4	Stanford U	4	Northwestern U
5	Princeton U	5	Northwestern U	5	U California - Berkeley
6	U California - Los Angeles (UCLA)	6	Massachusetts Institute of Technology (MIT)	6	Massachusetts Institute of Technology (MIT)
7	Stanford U	7	Yale U	7	New York U (NYU)
8	Cornell U	8	New York U (NYU)	8	U Michigan - Ann Arbor
9	U Pennsylvania	9	Oxford U	9	U California - Irvine
10	Northwestern U	10	Princeton U	10	Stanford U
11	U Michigan - Ann Arbor	11	U Wisconsin - Madison	11	Columbia U
12	U British Columbia	12	U Michigan - Ann Arbor	12	U Pennsylvania
13	London School of Economics (LSE)	13	U British Columbia	13	London School of Economics (LSE)
14	U Essex	14	Columbia U	14	California Institute of Technology
15	U Maryland - College Park	15	U Pennsylvania	15	Yale U
16	Yale U	16	London School of Economics (LSE)	16	U California - Los Angeles (UCLA)
17	Columbia U	17	U Illinois - Urbana-Champaign	17	U Rochester
18	New York U (NYU)	18	Ohio State U	18	Vanderbilt U
19	Michigan State U	19	U Maryland - College Park	19	U British Columbia
20	University College London	20	U Southern California	20	U Montreal
21	Dartmouth College	21	U Texas - Austin	21	U Wisconsin - Madison
22	U Texas - Austin	22	U Minnesota	22	Warwick U
23	U North Carolina - Chapel Hill	23	U California - Los Angeles	23	Cornell U
24	Brown U	24	Penn State U	24	U Illinois - Urbana-Champaign
25	Warwick U	25	U California - Davis	25	George Mason U
26	U Wisconsin - Madison	26	Boston U	26	U Toronto
27	U Toronto	27	U Arizona	27	Carnegie Mellon U
28	Oxford U	28	Duke U	28	Syracuse U
29	Syracuse U	29	U Toronto	29	U Southern California
30	Carnegie Mellon U	30	University College London	30	U Maryland - College Park
31	Boston U	31	Carnegie Mellon U	31	Rice U
32	Ohio State U	32	Purdue U	32	Duke U
33	Georgetown U	33	Michigan State U	33	Boston College
34	U Minnesota	34	U Virginia	34	U Texas - Austin
35	U Rochester	35	Cornell U	35	Johns Hopkins U
36	Johns Hopkins U	36	Indiana U	36	Texas A&M U
37	Boston College	37	Washington U St Louis	37	U Cambridge
38	Texas A&M U	38	Warwick U	38	Georgetown U
39	U California - San Diego	39	Queen's U		
40	Arizona State U	40	U Cambridge		
41	U Bristol	41	Georgetown U		
42	Duke U	42	Iowa State U		
		43	California Institute of Technology (Caltech)		
		44	U California - San Diego		
		45	U Rochester		

Trade & Development		Financial Economics		Resource and Agricultural Economics	
1	Harvard U	1	U Chicago	1	U Maryland - College Park
2	Columbia U	2	Harvard U	2	U California - Davis
3	Massachusetts Institute of Technology (MIT)	3	U Pennsylvania	3	U California - Berkeley
4	Princeton U	4	New York U (NYU)	4	Iowa State U
5	U California - Berkeley	5	Massachusetts Institute of Technology (MIT)	5	Harvard U
6	London School of Economics (LSE)	6	Northwestern U	6	North Carolina State U
7	U British Columbia	7	Stanford U	7	U Wisconsin - Madison
8	Yale U	8	U California - Los Angeles (UCLA)	8	U Minnesota
9	Brown U	9	Columbia U	9	Oregon State U
10	U Maryland - College Park	10	Princeton U	10	Ohio State U
11	U California - Los Angeles (UCLA)	11	Ohio State U	11	Yale U
12	U Wisconsin - Madison	12	London School of Economics (LSE)	12	U Arizona
13	U Chicago	13	Duke U	13	U Illinois - Urbana-Champaign
14	U Minnesota	14	U Rochester	14	Montana State U
15	Oxford U	15	U Southern California	15	U Wyoming
16	U Toronto	16	U Texas - Austin	16	U California - Santa Barbara
17	U Michigan - Ann Arbor	17	U California - San Diego	17	Purdue U
18	Stanford U	18	U California - Berkeley	18	Massachusetts Institute of Technology (MIT)
19	New York U (NYU)	19	Yale U	19	Michigan State U
20	U Colorado - Boulder	20	U Illinois - Urbana-Champaign	20	Stanford U
21	U Nottingham	21	U Michigan - Ann Arbor	21	U Connecticut - Storrs
22	U California - Davis	22	U Notre Dame	22	U New Mexico
23	U California - San Diego	23	Boston College	23	U Chicago
24	Penn State U	24	Purdue U	24	Cornell U
25	Cornell U	25	Cornell U	25	Columbia U
26	U Pennsylvania	26	U Maryland - College Park	26	Brown U
27	Boston College	27	U Florida	27	U British Columbia
28	Dartmouth College	28	U British Columbia	28	Australian National U
29	U Texas - Austin	29	Carnegie Mellon U	29	Penn State U
30	U Sussex	30	Indiana U	30	Washington State U
31	Northwestern U	31	U North Carolina - Chapel Hill	31	Texas A&M U
32	Ohio State U	32	California Institute of Technology	32	U Southern California
33	Florida International U	33	U Iowa	33	U Texas - Austin
34	U Washington	34	U Minnesota	34	U California - Los Angeles
35	Syracuse U	35	Emory U	35	Princeton U
36	Michigan State U	36	Arizona State U	36	U Colorado - Boulder
37	Tufts U	37	U Washington	37	Indiana U
38	Indiana U	38	Penn State U	38	U New Brunswick
39	U Virginia	39	U Wisconsin - Madison	39	U Washington
40	Warwick U	40	U Toronto	40	Duke U
41	U Southampton	41	Rutgers U	41	SUNY - Binghamton
42	Duke U	42	U California - Davis	42	U Nevada - Reno
43	Georgetown U	43	Michigan State U	43	U Maine
44	U California - Santa Cruz	44	Boston U		