



**Student Guide for Navigating
the Economics Department**

Williams College

Prepared by the Economics Student Advisory Committee

CONTENTS

Overview.....	3
What is Economics?	3
What can I do/where can I work with the Economics Major?	3
William’s Economics Department.....	5
Subfields of Economics	5
Curriculum	6
Major Requirements.....	7
Other Kinds of Classes	8
General Advice about What Courses to Take When	9
Handy Complementary Classes and Subjects	11
Example Schedules for the Economics Major.....	11
Specialized Schedules	13
Advising and Resources	19
Economic Resource Center	19
Math and Science Resource Center.....	20
Peer Tutors	20
Student Organizations	20
Academic Opportunities	20
Research Opportunities	20
Economics Department Fellowships.....	21
Degree with Honors/Senior Thesis	22
Class of 1960 Scholars	23
Study Abroad	23
Center for Development Economics.....	25
Preparing for Life After Williams (and Jobs More Generally).....	26
Summer On-Campus.....	26

Job Search and Internship Advice.....	27
Graduate School	28
Asking for Letters.....	28

OVERVIEW

WHAT IS ECONOMICS?

There are many definitions of economics. One common one is that economics is the study of choices and how people make them. Others say that economics studies the allocation of scarce resources. Regardless of how it is defined, economics is a broad discipline that helps us explain history, understand current events, and improve social welfare. Economics is not business or finance. Rather, most economists think of it as a set of tools that can be used to answer questions about how people behave and societies function. Modern economics tends to be highly quantitative, using math-based theory to apply structure to the way one looks at the world and complex statistical tools to draw inferences about the world from data.

WHAT CAN I DO/WHERE CAN I WORK WITH THE ECONOMICS MAJOR?

Economics training prepares you for a variety of careers. Some common careers for people who major in economics are:

- Central Banks
- Public Policy Think Tanks
- US Federal Agencies (Dept. of Commerce, Treasury, Bureau of Labor Statistics, etc.)
- Economic Consulting
- Educators and Researchers in Academia
- Nonprofits and Non-governmental organizations (NGOs)
- International Policy (World Bank, International Monetary Fund, etc.)
- Legal Professions (Law School)
- Strategy Consulting
- Investment Banking
- Private Equity
- Proprietary Trading
- Hedge Funds
- Actuarial Science/Insurance

- Marketing

Source: <http://whatcanidowiththismajor.com/major/economics/>

More information: <https://www.aeaweb.org/resources/students/careers/law-other-professions>

Graduates of the Williams Economics Department have gone on to varied careers in these and other fields. Recent graduates have found work in technology businesses, teaching at various levels, doing a variety of kinds of policy work for different levels of government and non-profit organizations, in addition to the fields you may have heard a lot about (finance or consulting). We also send many students on to graduate degrees in many fields, including economics, public policy, and law.

You can learn more about career options from the Williams Career Center. For students interested in graduate school, you can learn more from the economics professor who is currently the department's graduate school advisor.

WILLIAM'S ECONOMICS DEPARTMENT



Pictured faculty (from L to R): Matthew Chao, Sarah Jacobson, Matthew Gibson, Anand Swamy, Jon Bakija, Jessica Leight, Gerard Caprio, Ralph Bradburd, William Olney, Susan Godlonton, Sara LaLumia, David Love, Peter Montiel, Quamrul Ashraf, Kenneth Kuttner, Gregory Phelan, Peter Pedroni, Steven Nafziger, Ashok Rai, and William Gentry.

Faculty not pictured: Michael Samson, Lucie Schmidt, Stephen Sheppard, Lara Shore-Sheppard, Tara Watson, and David Zimmerman

Quoted from the Economics Department web site:

The economics department currently has 25 regular faculty members. About three-fourths of the faculty are in residence in a typical year, with the others spending time away on research-related leaves. Economics is one of the most popular subjects at Williams, with an average of about 90 majors in each graduating class. Another 10 to 20 students graduate each year with a major in Political Economy, an interdepartmental major combining economics and political science with a strong public policy focus. The economics department also operates and staffs the Center for Development Economics, which offers a one-year Master's degree in Policy Economics for about 25 to 30 early-career public servants from developing and transitional countries each year.

SUBFIELDS OF ECONOMICS

Economics is divided into three main areas: microeconomics (the study of how individuals and firms make decisions), macroeconomics (the study of how economies function), and econometrics (the statistical tools used to perform microeconomic or macroeconomic analysis). Within these fields, there are many subfields, such as:

- Behavioral Economics
- Development
- Economic History
- Education
- Environmental and Natural Resource Economics
- Finance
- Game Theory/Decision Theory
- Health Economics
- Industrial Organization
- International Economics and Trade
- Labor Economics
- Microeconomic Theory
- Macroeconomics - Monetary and Fiscal Policy
- Public Economics

CURRICULUM

The material in this section is quoted from the Williams College Course Catalog. Please check the current Catalog for updates.

Economics courses at Williams offer the advantages of a liberal arts college setting, including small class sizes and significant interaction between faculty and students. The department offers a wide variety of courses, including introductory classes designed to serve the needs of potential majors and nonmajors alike, core courses in economic theory and econometrics, numerous lower-level and upper-level electives, tutorials, and senior seminars involving a significant research and writing component. The offering of electives is flexible and designed to serve the teaching and scholarly interests of faculty members as well as the interests of students. Department members are also encouraged to develop new courses. A number of department members teach in several interdepartmental programs in the College (Political Economy, Environmental Studies, Afro-American Studies, Women's and Gender Studies, Asian Studies, and several geographic Area Studies programs).

Given the hierarchical structure of the economics major, students considering the economics major should try to start with ECON 110 during their first year. Since ECON 255 requires a prior statistics course (preferably STAT 201 but STAT 101 is acceptable), possible economics majors should complete the statistics requirement relatively early in their college careers. Students considering the economics major should avoid enrolling in STAT 202 and instead take ECON 255 or talk to a faculty member in the department for curricular advice. Since the 400-level electives typically require at least two of the intermediate core courses (ECON 251, 252, or 255), students are strongly encouraged to complete the core courses by the end of junior year. We prefer that the three intermediate core classes be taken at Williams so students planning on studying abroad as juniors should aim to complete these courses before departure if possible.

MAJOR REQUIREMENTS

Except for those receiving AP, IB, or A-level credit, nine courses are required for the economics major. These are:

Introductory courses

- Economics 110 Principles of Microeconomics
- Economics 120 Principles of Macroeconomics, Prerequisite: ECON 110

Passing the quantitative studies exam or the equivalent is a prerequisite for both classes. Both are suitable for non-majors. Electives numbered 200-299 will require one or both as prerequisites.

AP: Students who receive a 5 on the Microeconomics AP or Macroeconomics AP exam, or a 5 on each, may place out of ECON 110 or 120, or both, respectively. Even though ECON 110 is a prerequisite for ECON 120, students who place out of ECON 120 but not ECON 110 must still take ECON 110 if they wish to major in economics.

IB: Students receiving a 6 or 7 HL score may place out of ECON 110 and 120.

The AP Microeconomics curriculum aligns well with the ECON 110 course. Doing well in AP Microeconomics will allow you to easily skip ECON 110 to ECON 251, which is advised especially for the economics major. Skipping ECON 110 (or ECON 120) means only 8 courses are needed for the major, so you will never have to double up in economics during any semester to major.

Many professors would advise against skipping ECON 120 with only a 5 in AP Macroeconomics. There is a larger difference in topics for macroeconomics than there is in microeconomics. Students, however, can still do well in ECON 252 without having taken ECON 120. Like ECON 110, skipping ECON 120 will reduce the number of courses needed. If you skip both ECON 110 and ECON 120, you will only need 7 courses for the major.

Core Courses

- Economics 251 Price and Allocation Theory. Prerequisites: MATH 1 and ECON 110
- Economics 252 Macroeconomics. Prerequisites: MATH 1, ECON 110 and ECON 120
- Economics 255 Econometrics. Prerequisites: MATH 1 plus either STAT 101 or 201.*** The combination of STAT 201 and 346 will satisfy the ECON 255 major requirement, although not all upper-level electives and seminars accept STAT 201/346 as a prerequisite in lieu of ECON 255. POEC 253 may not substitute for ECON 255 in fulfilling the major requirements, although some electives may accept POEC 253 as a prerequisite in lieu of ECON 255.

The three core classes may be taken in any order. All of the 300- and 400-level electives will require at least one of the core classes, and many of the 400-level seminars require ECON 255.

Note: Only STAT 101 is needed as a prerequisite for ECON 255, but it is recommended that students take STAT 201 for a stronger background in statistics. However students should be aware that MATH 150, Multivariable Calculus, is a prerequisite for STAT 201

Upper-Level Electives

Students must complete at least four economics electives in addition to the introductory and core classes listed above. At least two must be advanced electives numbered 350 to 395. At least one must be a seminar numbered 450-480, and a second seminar may be taken in lieu of a 300-level elective. Enrollment preference for 400-level classes is given to those who have not already taken a seminar. Note that some of the advanced electives may have specific requirements beyond the core economics courses and MATH 130. Juniors and seniors majoring in Economics or Political Economy may, with the permission of the instructor, enroll in 500-level graduate courses given by the Center for Development Economics. These courses can substitute for advanced electives numbered 350-395, unless otherwise noted in the course description.

OTHER KINDS OF CLASSES

Independent Study

Quoted from the Williams College website: <https://www.williams.edu/academics/areas-of-study/>

When a particularly able student wishes to study a subject not covered by the normal offerings of the college, arrangements may be made to undertake semester-long courses of independent study under faculty supervision. For more information about the application: <https://web.williams.edu/admin/registrar/petitions/IndependentStudy.pdf>

Tutorials

Quoted from the Williams College website: <https://www.williams.edu/academics/tutorials/>

Adapted from the Oxford University style of education, the Williams tutorial is a remarkable academic experience you won't find at most other colleges. Every week, the two students take turns developing independent work—an essay, a report on lab results, a piece of art—and critiquing it. With the support and guidance of their professor, they sharpen their critical thinking, improve their writing, develop ideas, and defend positions. The tutorial gives them a sense of ownership of the academic process that inspires ever-greater exploration. With 60 to 70 tutorials offered each year across the curriculum, more than half of all Williams students take at least one during their time here.

Examples of Previously Offered Economics Tutorials:

- Global Financial Crises & African Economics Development (**ECON 225**)
- Colonialism in South Asia (**ECON 240**)
- Financial Crises: Causes & Cure (**ECON 390**)
- Economics of Risk (**ECON 458**)
- Development Successes (**ECON 457**)

GENERAL ADVICE ABOUT WHAT COURSES TO TAKE WHEN

Economics professors can be very helpful in helping you figure out what classes to take and when, and to help you think through the pros and cons of various options. If an econ prof is your academic advisor, ask them for help; if not, ask any econ prof for help!

Some students come to Williams with a background in economics (perhaps placing out of some classes), and some students don't start the introductory classes until their second year at Williams. While it's easier to complete the major if you have an earlier start, if you structure your schedule carefully it is quite possible to be a happy and successful Williams econ major if you start "late."

Think of the major as having two chunks: the core classes and the electives. The core classes are fundamental (in that they serve as the basis for other classes) and generally more abstract; the electives are generally considered more "fun" because they usually focus on applications of that fundamental material. To learn whether you like economics, you should take at least one elective as early as possible.

One feature of the core to be aware of regards statistics. The major allows Stat 101 or 201 to be used as a prerequisite for Econ 255 (econometrics). However, Stat 201 is a much better foundation. It does itself have math prerequisites, though. If at all possible, you should try to take Stat 201 instead of 101.

Some kinks in schedules revolve around study away. Many of those core classes are difficult to take during study away, and plus it's usually better to take that limited time away to take a class that's not offered here. You can usually easily get 200-level elective credit, and sometimes 300-level elective credit, from classes taken abroad. There are exceptions. Ask the Economics Department's study abroad coordinator for help. But in general, if possible, you want to take the core classes before you study away.

Note that the core classes are prerequisites for later electives. If you can't take all of your core classes early, you might look at which electives are most interesting to you and see what their prerequisites are. Econ 255 (econometrics) is a prerequisite for a lot of classes, so you probably don't want to delay taking that class; but if you find that you're mostly interested in microeconomic-based classes, you might be able to delay taking Econ 252 (macroeconomics) until your junior or even senior year, and vice versa for Econ 251 (intermediate microeconomics).

But one thing to bear in mind is that while the economics department offers all core classes every semester, not all elective classes are offered every year; it depends on which professors are around and what other needs the department has. If there's a class you really want to take, find out whether the prof is likely to be on leave in the next couple of years to try to assess whether this might be your last chance during your Williams career to take the class.

Another thing to bear in mind is the possibility of writing an honors thesis. This can be a very rewarding experience, and if you want to keep the option open of doing this, it's helpful to plan ahead. Taking a 300-level or, preferably, a 400-level elective in your junior year can be really helpful because you often write substantial term papers in such classes. These term papers can give you inspiration for the research process, and in some cases can serve as the basis for a thesis. De facto, most honors theses are one semester in the spring, and the second most common kind is full year theses.

Some Williams students choose to pursue multiple majors. Most profs advise against this – it just imposes extra constraints on your schedule. Why not major in one thing and just take a bunch of classes in the other thing you're interested in? But if you do choose to double major, you might choose a field that relates to econ in some way (like math or stats) or you might choose a complementary field that relates to whatever you'd like to study with econ (e.g. art history, psychology, classics).

Another thing to consider is the opportunity to take an elective class at the Center for Development Economics (CDE). These classes are listed as 500 level or 500/300 level. Don't be intimidated. They are somewhat different from your other electives in that they are more focused on economic development of countries and more policy-focused, and often somewhat less mathematical. But they can be amazing experiences.

Finally, this is a time to explore. Consider taking more econ classes than the bare minimum; many people enjoy the 200-level electives, so consider sampling some extra ones, even if they are outside of the fields that feel like your natural subjects. You never know what you might learn.

HANDY COMPLEMENTARY CLASSES AND SUBJECTS

It's often useful to take additional economics classes. Linear algebra (Math 250) can make understanding econometrics easier. The course catalog lists the math classes that are most useful if you plan to go on to econ grad school.

Some statistics classes can be useful complements. Note that Stat 346 is actually basically an imperfect substitute for Econ 255 (econometrics) – it covers some of the same basic material, but has more theoretical depth while lacking some of the breadth; in other words, while in Stat 346 you'll prove properties of models more thoroughly, in Econ 255 you'll learn about more of the variety of tools used for analysis in economics. This is why Stat 346 is accepted for credit toward the major and accepted as an alternative prereq (instead of 255) for some, but not all, applied econ electives. Check the course listing of the classes you're interested in to be sure.

Programming skills are very useful in economics (and in life), so you might take an intro computer science class.

EXAMPLE SCHEDULES FOR THE ECONOMICS MAJOR

Starting in the First Year:

	Fall	Spring
First Year	(ECON 110) Principles of Microeconomics (MATH 130) Calculus I	(ECON 120) Principles of Macroeconomics
Sophomore	200-Level Elective	(ECON 251) Intermediate Microeconomics (STAT 101/201) Statistics & Data Analysis
Junior	(ECON 255) Econometrics	(ECON 252) Intermediate Macroeconomics 300-Level ECON Elective
Senior	300-Level ECON Elective	ECON Senior Seminar

Starting in the Second Year:

	Fall	Spring
Sophomore	(ECON 110) Principles of Microeconomics (MATH 130) Calculus I	(ECON 120) Principles of Macroeconomics
Junior	(ECON 251) Intermediate Microeconomics (STAT 101/201) Statistics & Data Analysis	(ECON 252) Intermediate Macroeconomics (ECON 255) Econometrics 200-Level ECON Elective
Senior	300-Level ECON Elective 300-Level ECON Elective	ECON Senior Seminar

Going Abroad in Junior Year:

	Fall	Spring
First Year	(ECON 110) Principles of Microeconomics (MATH 130) Calculus I	(ECON 120) Principles of Macroeconomics (STAT 101/201) Statistics & Data Analysis
Sophomore	(ECON 251) Intermediate Microeconomics 200-Level ECON Elective	(ECON 252) Intermediate Macroeconomics (ECON 255) Econometrics
Junior	Study Abroad	Study Abroad
Senior	300-Level ECON Elective 300-Level ECON Elective	ECON Senior Seminar

Senior Thesis:

	Fall	Spring
First Year	(ECON 110) Principles of Microeconomics (MATH 130) Calculus I	(ECON 120) Principles of Macroeconomics
Sophomore	(ECON 251) Intermediate Microeconomics 200-Level ECON Elective	(ECON 252) Intermediate Macroeconomics (ECON 255) Econometrics
Junior	300-Level ECON Elective	ECON Senior Seminar
Senior	ECON Honors Thesis / 300- or 400-level Elective	ECON Honors Thesis

SPECIALIZED SCHEDULES

Below are example tracks if you want to go into public policy, development studies, political economy, or graduate school.

Public Policy Track:

	Fall	Spring
First Year	(ECON 110) Principles of Microeconomics	(ECON 120) Principles of Macroeconomics
Sophomore	(ECON 251) Price & Allocation Theory 200-Level ECON Elective	(ECON 252) Intermediate Macroeconomics (STAT 101) Elementary Statistics & Data Analysis
Junior	(ECON 255) Econometrics	300-Level ECON Elective
Senior	ECON Senior Seminar	300-Level ECON Elective

Recommended Electives:

- Gender and Economics **(ECON 203)**

- Public Economics (**ECON 205**)
- Intro to Environment and Natural Resources (**ECON 213**)
- Water as a Scarce Resource (**ECON 228T**)
- Law and Economics (**ECON 229**)
- The Economics of Health and Health Care (**ECON 230**)
- Behavioral Economic and Public Policy (**ECON 233**)
- Economic Liberalism and its Critics (**ECON 299**)
- Tax Policy (**ECON 351**)
- Financial Development and Regulation (**ECON 352**)
- The Economics of Higher Education (**ECON 357T**)
- Poverty and Public Policy (**ECON 374T**)
- Global Health Policy Challenges (**ECON 381**)
- Cities, Regions and the Economy (**ECON 383**)
- Economics of Climate Change (**ECON 387**)
- CDE Electives

Recommended Senior Seminars:

- Research in Labor Economics (**ECON 453**)
- Income Distribution (**ECON 456**)
- Public Economics Research Seminar (**ECON 457**)
- Economics of Institutions (**ECON 459**)
- Pollution and the Labor Market (**ECON 465**)
- Your Money or Your Life: Health Disparities in the United States (**ECON 468**)
- Advanced Econometrics (**ECON 471**)
- Behavioral Economic Theory (**ECON 476**)
- Economics of Environmental Behavior (**ECON 477**)

Political Economy Track:

If you would like to major in Political Economy, talk to the chair of the Political Economy department. This is a complicated major and you need help navigating it.

	Fall	Spring
First Year	<p>(ECON 110) Principles of Microeconomics (PSCI 201) Power, Politics, and Democracy in America</p>	<p>(ECON 120) Principles of Macroeconomics</p> <hr/> <p>(PSCI 202) World Politics: An Introduction to International Relations or (PSCI 203) Introduction to Political Theory or (PSCI 204) Introduction to Comparative Politics: State, Nation, and Democracy</p>
Sophomore	<p>(POEC 253) Empirical Methods in Political Economy or (ECON 255) Econometrics</p> <p>(POEC 250/ECON 299/PSCI 238) Economic Liberalism and Its Critics</p>	<p>300-Level PSCI Elective</p>
Junior	<p>300-Level Econ Elective</p>	<p>300-Level Econ Elective Or 300-Level PSCI Elective</p>
Senior	<p>(POEC 401) Contemporary Problems in Political Economy</p>	<p>(POEC 402) Political Economy of Public Policy Issues</p>

Recommended Electives:

The following is a link to a list of PSCI and ECON electives:

<http://political-economy.williams.edu/the-major/major-requirements/>

NOTE: students must take at least one elective in Economics and at least one elective in Political Science; the third elective may come from either Economics or Political Science.

Please see the online catalog for up-to-date information on which courses are being offered in the current year.

Development Economics Track:

	Fall	Spring
First Year	(ECON 110) Principles of Microeconomics (MATH 130) Calculus I	(ECON 120) Principles of Macroeconomics
Sophomore	(ECON 251) Price & Allocation Theory	(ECON 252) Intermediate Macroeconomics (STAT 101) Elementary Statistics & Data Analysis
Junior	(ECON 255) Econometrics 200-Level ECON Elective	300-Level ECON Elective CDE Elective
Senior	ECON Senior Seminar	CDE Elective

All classes cross-listed with the CDE can be interesting to take for this kind of track. You will get 300-level credit for most CDE electives. Some are harder to get into than others because some only allow a few undergraduate students; talk to the prof if you're unsure. Also note that the CDE classes that are offered in the fall are their core courses while those in the spring are their electives; thus the spring classes often have more applied content.

In addition to the CDE classes and crosslists, the following classes are good complements:

Recommended Electives:

- Economics of Developing Countries **(ECON 204)**
- Global Health Policy Challenges **(ECON 381)**

Recommended Senior Seminars:

- Public Economics Research Seminar **(ECON 457)**

Early Start Graduate School Track:

	Fall	Spring
First Year	(ECON 110) Principles of Microeconomics (MATH 150/151) Multivariable Calculus (CSCI 134/135) Intro to Computer Science	(ECON 120) Principles of Macroeconomics (STAT 201) Statistics and Data Analysis (MATH 250) Linear Algebra
Sophomore	(ECON 251) Price & Allocation Theory (ECON 255/STAT 346) Econometrics/Regression & Forecasting	(ECON 252) Intermediate Macroeconomics (STAT 360) Statistical Inference 300-Level ECON Elective
Junior	300-Level ECON Elective (MATH 350) Real Analysis	ECON Senior Seminar 300-Level ECON Elective
Senior	Thesis	Thesis

Recommended Electives:

- Game Theory **(ECON 385)**
- **Topics in Macroeconomics (ECON 451)**
- Advanced Econometrics **(ECON 471)**
- Macro Instability and Financial Markets **(ECON 472)**
- Advanced Microeconomic Theory **(ECON 475)**

Other Recommended Courses:

The ones that matter most are the ones that the Economics catalog mentions: multivariable calculus, differential equations, linear algebra, and real analysis (either version).

- Probability **(MATH 341)**
- Statistical Inference **(STAT 360)**
- Differential Equations **(MATH 209/210/309)**
- Measure Theory and Probability **(MATH 402/403)**

- Functional Analysis (**MATH 401**)
- Introduction to Computer Science (**CSCI 134/CSCI 135**)
- Regression and Forecasting (**STAT 346**)

Late Start Graduate School Track:

	Fall	Spring
First Year		
Sophomore	(ECON 110) Principles of Microeconomics (MATH 130) Calculus I	(ECON 120) Principles of Macroeconomics (MATH 140) Calculus II
Junior	(ECON 251) Price & Allocation Theory (MATH 150) Multivariable Calculus 200-Level ECON Elective	(ECON 252) Intermediate Macroeconomics (ECON 255) Econometrics 300-Level ECON Elective
Senior	ECON Senior Seminar (MATH 250) Linear Algebra	1-Semester Thesis 300-Level ECON Elective (MATH 350) Real Analysis

Recommended Electives:

(As above)

Other Recommended Courses:

(As above)

Remarks: If you've started the economics major late but want to go to graduate school, a good idea to get more preparation is to take a 2-year research assistantship after graduation rather than applying immediately. First, having started preparation for grad school late, it will give you more opportunities to get research experience and see if this is really what you want to do. Second, most RA positions pay for additional coursework, so you can improve your preparation, especially if you were unable to take MATH 350. Third, success as an RA usually bumps your target schools up a tier. So if you were looking at second tier grad schools, taking an RA position can usually boost you to tier 1 schools. See above and see announcements from the Econ Dept for some recommended places to apply.

Indeed, professors recommend to nearly all students that, even if they are pretty sure they want to go to grad school and even if they have strong records, they should spend some time working (best case a research assistant, but some kinds of consulting and other work can also serve the same purpose) before going to graduate school. The time and experience can be really helpful in figuring out what you want and in setting you up to do good and interesting research.

Also, if you get a sufficiently late start that you don't manage to take all of the econ classes that are recommended for grad school, not to worry. Get a job after undergrad and you can take those classes at night while you're working.

Finance/Consulting

Few, if any, courses in the economics department are directly relevant to finance or consulting. Indeed, most recruiters do not even care what your major is, so long as you demonstrate interest in the field and exhibit strong critical thinking skills during the interview. Instead, we recommend looking at Winter Study courses if you would like direct preparation for these careers. In the past, winter study courses including (but not limited to) investment banking, private equity, and consulting case interviews have been offered.

ADVISING AND RESOURCES

In any particular class, you should use your professor and the teaching assistant as your primary resources. Go to office hours; email the professor to set up time outside of office hours to meet; get to know him or her and ask any kind of question. They expect you to do this, so don't be bashful.

Regarding advising: you have an academic advisor and you should ask that prof questions about classes, study away, and plans for career and graduate school. You should also consider any prof in the Economics Department an informal advisor; they are here to help. Browse the department website to learn about the professors and feel free to reach out to any of them, by email or in their office hours, with questions.

ECONOMIC RESOURCE CENTER

If you have questions on a problem set, want to talk to another student about economic concepts, or need a place to study, the Economic Resource Center is available throughout the week. The Economic Resource Center (ERC) was designed to provide students enrolled in economics classes with a welcoming space where they can receive tutoring, advice, and snacks. Tutors are available for ECON 110 and 120. See the [ERC Facebook page](#) for more information.

MATH AND SCIENCE RESOURCE CENTER

The MSRC is open Sunday through Thursday evenings from 8pm to midnight in Schow Library 030B. Tutors are available every night to answer questions in Math 130/140/150/151. Currently, there are no tutors for Stat 101/201, but students can request one through the peer tutoring system (see below).

PEER TUTORS

The Peer Tutor Program is an important part of academic resources at Williams College. A qualified undergraduate tutor may be available to any student who desires assistance to meet the demands of courses in which they are currently enrolled. This one-on-one tutoring is free and is organized by the Academic Resource Center. You can request a Peer Tutor for Economics through TutorTrac. See the Peer Tutor webpage on the Williams College website.

STUDENT ORGANIZATIONS

Economics Student Advisory Committee (ESAC)

ESAC is a group founded in 2015-16 to promote a sense of community among anyone on campus interested in Economics.

Women in Business

Women in Business is a group for female students looking to pursue a career in business. The business world is overwhelmingly male dominated and this group aims to empower female students to confidently pursue their business aspirations. We host meetings to give tips about the recruiting process, bring powerful women as speakers to present, and attend conferences.

Other

A broad student organization seeking to address issues of inclusion in the STEM+ fields (and econ is part of the + in STEM+) is being developed, and it is tentatively named OURSTEM.

ACADEMIC OPPORTUNITIES

RESEARCH OPPORTUNITIES

There are many opportunities for pursuing research in economics during the summer. Some of the larger ones are:

- Summer Research Assistantship at Williams College (more details in Summer On-Campus)
- Columbia Graduate School of Business Summer Research Internship
- Northwestern University Summer Research Opportunity Program
- University of Michigan Summer Research Opportunity Program

Other research jobs are available from individual professors and research groups across the country and the world. The economics department tries to share these jobs through the regular Newsletter and other media (e.g. Facebook).

ECONOMICS DEPARTMENT FELLOWSHIPS

The Carl Van Duynes Prize in Economics

Quoted from the Department website: <https://econ.williams.edu/major/honors-program-theses/>

Carl Van Duynes, Associate Professor of Economics at Williams, died in 1983 at the age of 36. Carl worked especially well with honors students and others doing independent work, so it is fitting that a prize in his memory encourages independent research by students. The prize is awarded to a student who has “exhibited not only excellence in economics but also the inquisitive mind and motivation of a true scholar” during the first three years of study and who proposes a full-year honors thesis that shows unusual promise. The prize includes a stipend of about \$4,000 in the summer before the senior year if the recipient works on the thesis during that summer. In general, the work must be done in Williamstown, in close contact with the thesis adviser. (The recipient is also eligible for the subsidized housing the College makes available to research assistants and other student employees during the summer.) The prize also includes a stipend of approximately \$500 in the fall of the senior year, and another \$500 the following spring. Each of these stipends is conditional on continued satisfactory progress on the thesis during that term. Another stipend of about \$900 in the first year of graduate study will be made available if the recipient completes an honors thesis and then goes on to do graduate work in economics.

We invite all applicants for the year long route to apply for the Van Duynes Prize. Simply include in your application for the year long route a statement indicating that you are applying for the prize and that if you receive it you will work on your honors thesis during the summer.

Barbara Solow Research Fellowship

Quoted from the Department announcement of the Solow Fellowship: http://web.williams.edu/williams-only/Economics/NewsletterAnnouncements/201701/SolowFellowshipAnnouncement_Jan2017.pdf

The Barbara Solow Research Fellowship provides financial assistance to Williams College student(s) conducting research in Economic or Business History, or in other areas reflecting the diverse interests of the pioneering economic historian Barbara L. Solow, including Irish history, Caribbean slavery, and other historical topics in the social sciences. The funds of the Solow Fellowship may be used in two ways: 1) to support one or more summer research fellowships,

undertaken either on or off campus, and/or 2) to cover travel or research expenses during the academic year.

The total yearly budgeted amount for all funded Fellowships is \$5000. One or more Fellowships may be awarded in a given year until these funds are exhausted. Subject to the strict dollar limit, Fellowships may provide funding for:

- Travel to visit archival collections, libraries, or other sources of original material vital for the proposed project.
- Expenses incurred by obtaining necessary books, data, or other materials necessary for the research project. This may include costs associated with translation, transcription, data acquisition, or data entry directly relevant for the research project.

Summer Fellowships should be at least 4 weeks in length, although shorter duration research will be considered if it contributes towards a longer-term project.

Those interested should prepare a 3-4 page description of the research project, timeline, and budget.

DEGREE WITH HONORS/SENIOR THESIS

Quoted from the Department website: <https://econ.williams.edu/major/honors-program-theses/>

The honors program in economics provides an opportunity for motivated and qualified senior majors to conduct sustained, independent research on a topic of interest to them. To receive honors in economics, you need to do a piece of original and independent research using economic tools and to write an honors thesis reporting the research. The key here is “original and independent,” but those words do not necessarily imply “theoretical” or “mathematical” or “econometric.” Most theses do involve econometric analysis of data. Theoretical economic modeling, simulations matching mathematical economic models to data, and experimental economics are also popular approaches. But many successful honors graduates have worked on case studies, historical analyses, economic philosophy, or topics in the history of economic thought.

We encourage all majors who have at least a 3.5 GPA in economics courses to consider honors. (We have occasionally approved an application from a major who has an economics GPA a bit below 3.5 if the application is particularly well thought out, if the student has shown he or she can work well in independent research, and if she or he has the strong support of a faculty member.)

There are three possible routes to honors in economics: the “senior full-year thesis,” the “senior fall one-semester thesis,” and the “senior spring one-semester thesis.” Students interested in a full-year thesis or a fall one-semester thesis, should begin preparing as juniors for the application deadline in the spring of junior year. Students interested in a spring one-semester

thesis, need to take no action until the fall of senior year; the Honors Coordinator will send additional information then.

CLASS OF 1960 SCHOLARS

Quoted from the Department website: <https://econ.williams.edu/major/class-of-60-scholars/> and http://web.williams.edu/Economics/ClassOf60Scholars/Memo_Fall_Juniors1960Apps.pdf

Each year the Economics Department selects a group of students to participate in a series of special seminars given by economists from a variety of colleges, universities, and research institutions. Students selected to participate in this seminar series are designated Class of 1960 Scholars.

Participation in these seminars will provide you with opportunities to read and discuss cutting-edge research, and to experience the intellectual give-and-take that is an essential element of the research process. Research seminars provide an opportunity to engage with economics outside of the normal classroom environment, and post-seminar dinners allow you to interact informally with the visiting speakers and Williams faculty.

Those chosen to be in the program join in the spring of the junior year, and participate for three semesters (junior spring, senior fall, and senior spring). There are typically three or four seminars per semester and they cover a wide range of topics within economics. If selected, you are expected to attend at least five of the seminars over the course of three semesters. In cases where papers are circulated in advance, we expect you to have read the paper before the seminar, and to come to the seminar prepared to ask questions or offer comments. You are also encouraged to discuss the paper with faculty members before the presentations. Study abroad and extracurricular commitments need not stand in the way of your participation, but you should not apply unless you can commit to attending at least five of the seminars, and two of the post-seminar dinners over the rest of your Williams career. There is no minimum GPA requirement to apply. Academic achievement is one criterion for admission, but any economics major with interest, enthusiasm, and commitment to active and regular participation.

STUDY ABROAD

The material in this section is quoted from the Department website: <https://econ.williams.edu/major/study-abroad/>

I'm an economics major considering study abroad. What do I have to do?

After deciding on your plans, you must submit a "*pink petition*" (requesting permission from the Committee on Academic Standing to study away) by the deadline in mid-March. As an economics major, the economics study abroad coordinator is the person who must sign your form. Before the coordinator can sign your form, you must determine how you are going to complete your major and whether there are classes you plan to take abroad for which you would

like to get major credit. If there are, you must bring information (course description and/or syllabus) on the courses you are considering to your meeting with the study abroad coordinator.

Can I get credit towards the major for elective courses taken abroad?

Yes. The department typically grants lower-level credit for any course that has introductory economics (the equivalent of ECON 110 or 120) as a prerequisite. Upper-level elective (ECON 350-399) credit is granted for courses that have an intermediate-level economics course (the equivalent of ECON 251, 252, or 255) as a prerequisite. Note that you cannot receive credit for a course that substantially duplicates a course that you take at Williams. Also note that the highest-level elective seminars (ECON 450-475) must be taken at Williams.

Can I take ECON 251, 252, or 255 abroad?

Yes. However, in order to ensure that a course you are planning to take will be acceptable to the department in lieu of a core course, your course must be approved by the department's study abroad coordinator *before* you go. To satisfy the department's requirements, an intermediate theory course must have introductory economics as a prerequisite and must cover essentially the same material covered in the course here at Williams. Bring a course description or syllabus to your meeting with the department's study abroad coordinator to have the course you are considering approved. Note that it is particularly difficult to find courses abroad that are equivalent to ECON 255.

I am planning to study abroad for the whole year and will be taking a year-long course. Does the economics department grant two course credits toward the major, or one?

The economics department grants only one credit per course, even if it is a year-long course.

I am considering the Williams in Oxford program. Is it possible to take the equivalent of ECON 251, 252, or 255 through WIOX?

Yes. See the question above.

Does the economics department's study abroad coordinator have specific information about study abroad programs or about specific courses that can be used to satisfy the department's requirements?

Not really. The Study Abroad office is the best place to find resources about study abroad programs. However, it is likely you will be able to find a course that would gain you upper-level credit through almost any program that offers access to regular university courses. If you have a question about whether a particular course would be granted credit, email the department's study abroad coordinator a copy of the course description or syllabus and he or she can make that determination.

I was away last semester/year. How is credit granted for the courses I took?

After you return, the Registrar forwards the transcript from your study abroad program to the economics study abroad coordinator. (You are responsible for ensuring that the Registrar

receives your study abroad transcript.) The economics study abroad coordinator makes the determination about whether the course meets the department's guidelines based on the information about the course you provided at the time of your initial meeting.

I took different courses than the ones I discussed with the study abroad coordinator. How do I get credit for these courses?

If your plans change after your initial discussion with the study abroad coordinator and you end up taking an alternative course that you would like to have considered for credit, you must provide the study abroad coordinator with information (course description and/or syllabus) that allows him or her to make the determination about the appropriate credit. *In order to avoid delays in awarding credit and to avoid difficulties obtaining course information from your study abroad professors after you return, it is best to send this information to the economics department study abroad coordinator while you are still abroad.*

I took an economics course at a domestic college/university. How do I get major credit for this course?

The process for domestic transfer credits is essentially the same as the process for study abroad credits.

CENTER FOR DEVELOPMENT ECONOMICS

Quoted from the CDE website: <https://cde.williams.edu/>

The Center for Development Economics (CDE) at Williams College offers an intensive, one academic year, master's degree program designed for economists from low and middle-income countries who have some practical experience. The goal of the program is to provide students with a thorough understanding of the development process, emphasizing analytical techniques helpful to policymakers. The result is an effective mix of theory and policy application that enables students to be more objective in their home environment.

Over the years, the CDE has trained more than 1000 students from 100 nations around the world in an intellectual and residential atmosphere that is rigorous yet supportive and friendly. While individual graduates have risen to the highest levels of service in their governments, we are most proud of the commitment to development demonstrated by more than 90 percent of alumni who still live and work in their home countries.

CDE faculty members have Ph.D. degrees from among the most prestigious institutions in the U.S. and around the world. They also have extensive teaching and practical experience, many having either lived in developing countries (often as government consultants) or worked for international organizations such as the World Bank and the IMF. Small classes at the CDE allow individual attention from a faculty that is readily available to meet with students outside of the scheduled class time.

The admissions process is highly selective. Candidates for the CDE program include those with superior first degrees (often in economics) and who have demonstrated responsibility early in their careers in public sector institutions or in non-governmental organizations. The CDE works closely with foreign governments, with international agencies, and with admitted candidates to arrange funding for incoming students. We normally enroll about twenty-five individuals per year. While the application deadline is December 1, we strongly encourage earlier submission to increase funding opportunities.

PREPARING FOR LIFE AFTER WILLIAMS (AND JOBS MORE GENERALLY)

SUMMER ON-CAMPUS

Quoted from the Department website: <https://econ.williams.edu/student-resources/summer/>

Each summer, a number of economics faculty members typically hire student Research Assistants (RAs). Qualifications that are most in demand include knowledge of econometrics, experience working with data, and in some cases computer programming skills. If you are interested in such a job, taking Economics 255 or equivalent will be often be very helpful, and taking one or more computer programming courses can be invaluable. The work of a summer research assistant will vary in nature, from research in the usual sense—estimating econometric equations, writing software for economic modeling, doing library searches and writing summaries of articles, searching for data, and writing literature reviews—to much lower level things like photocopying, proofreading, filing, preparing mass mailings, and entering data into spreadsheets or word processing programs. We try to make sure every RA has a mix of the more exciting and more mundane things to do, and in any event we will let you know in advance of your accepting a position just what it is we expect you to do. Research assistants are paid a stipend (typically \$4,000 for ten weeks of full-time work) and provided with subsidized housing (if located in Williamstown).

In January or early February we send out a memo to all economics and political economy majors, as well as sophomores who have taken any of the core economics courses, requesting applications for research assistant positions (the link to the latest available memo is available above). Many student research assistants are matched with professors through this process. If you are interested in a summer research assistant job, it can also be a good idea to directly contact a professor you know well and with whom you are interested in working, in order to inquire about summer employment opportunities. Most decisions about summer employment and funding are made in early- to mid-March. If you have any questions about summer research assistant opportunities in economics, contact the Economics Department's Research Director for the year.

Quoted from the Department website: <https://econ.williams.edu/student-resources/job-search-advice/>

This page offers information on how to find employment involving economic and/or public policy research. There are many other types of jobs for which the study of economics provides good preparation; for advice on how to find those other kinds of jobs, please see Williams' [Office of Career Counseling](#). One option for summers is to work as a research assistant for a Williams economics professor.

Many economic and policy research organizations offer summer internships and postgraduate research assistant jobs. These employers typically look for students with good academic records and evidence of economic research skills. Strong academic backgrounds in economics, statistics, and econometrics are often viewed as particularly useful qualifications. Some experience with computer programming can also be quite helpful. Appropriately, finding these kinds of jobs requires you to do a bit of research, and this web site can help you get started on that. These kinds of places typically post job opening and internship announcements on their web sites and begin accepting applications sometime around January, and they often respond and/or conduct interviews during late winter or early spring.

Economic and policy research organizations come in many varieties, differing in terms of political orientation and in the kinds of things they do. For example, some places are more academic in orientation, engaging in impartial research on questions where they do not necessarily already know the answers. Other organizations are more oriented towards “advocacy” — they tend to assume they already know the answers, and spend most of their efforts constructing arguments for their side of the debate. Still other places are somewhere in between. You can learn more about what particular policy research organizations do by checking out their web sites, and also perusing some third-party web sites that provide directories and summary information about these various institutions. Links to some of these directories, as well as links to numerous examples of major economic and policy research institutions that hire interns and/or research assistants, are included below:

Examples of policy research institutions that frequently hire research assistants or interns

Harvard Kennedy School directory of think tanks

NIRA world directory of think tanks

SourceWatch. Provides information on the funding sources of various think tanks and policy research organizations; can be helpful for understanding where they are coming from politically.

In some cases, summer internships are unpaid. In these cases, the college offers a limited amount of funding, on a competitive basis. The Kershaw Internship program in particular often funds internships related to economics and public policy. See the Williams Office of Career Counseling web page on [Williams Alumni Sponsored Internships](#) for more information on how to apply for these

GRADUATE SCHOOL

Quoted from the Department website: <https://econ.williams.edu/student-resources/grad-school-preparation/>

Graduate training for a Ph.D. in economics requires much more mathematical sophistication than undergraduate economics does. Multivariable Calculus (MATH 150), Linear Algebra (MATH 250) and Real Analysis (MATH 350) are essential. Other math, statistics, or computer science courses may also be useful as preparation for certain fields in economics. In general, good grades in math classes will boost your chances of getting into a top Economics Ph.D program, and will make it easier to understand what your professors are talking about and to survive once you get there. To get an idea of what economics research is all about (and to get to know a faculty member well), you should consider writing a senior honors thesis.

Where should you apply? There are several rankings available on the web, and these can give you a rough idea of reputations of various departments. Most departments are stronger in some fields than in others — talk to a professor in the field you are interested in for more specific suggestions on where to apply.

How to finance a Ph.D? Graduate programs typically offer merit-based fellowships or teaching assistant positions to *some* of the students they admit. Some students borrow to finance the first year of an economics Ph.D program, and then can usually obtain teaching assistant positions, research assistant positions, or more rarely fellowships, to finance their tuition and living expenses after the first year. If you are a US citizen or resident, you should also consider applying for outside fellowships from the [NSF](#) and [Javits](#). NSF graduate fellowships in particular are extremely competitive and prestigious, and are rumored to help you gain admittance to top schools. The application for an NSF graduate fellowship requires that you submit a research proposal — Chris Blattman offers [excellent advice on how to write a proposal for NSF funding for graduate school](#). If you are an Asian citizen, you should consider applying for the [Japan-IMF scholarship](#). Miles Kimball offers thoughts on the cost-benefit aspects of financing graduate education in economics [here](#).

Graduate programs in economics look for a high score in the quantitative [GRE](#). But know that the kind of math that is on the GRE is much easier than the math you are expected to know before you start a Ph.D program in economics. You can find a partial list of Williams graduates who have started Ph.D. programs in economics or related fields in recent years (since about 2005) [here](#).

ASKING FOR LETTERS

Most jobs, graduate schools, study abroad programs, and internships require a letter of recommendation or contact information for a reference, nearly always submitted by the writer directly so you never see it. It is part of your professors' job to write these letters for their students, so do not be shy about asking for a recommendation. Ask with plenty of time in

advance (a few weeks), and be prepared to share with your professor your resume and information about what you're applying for and why you are interested in doing it. Your professor may or may not want to meet to discuss your interest in the position.

The letters matter less (and are easier to write) for low-stakes opportunities like study abroad than for more selective or higher-stakes opportunities, so be particularly careful about choosing your letter-writers for the higher-stakes instances.

Who is a good letter-writer for you? An optimal letter-writer: has had you in at least one class or has supervised you in research, thesis, or other work; their contact with you was relatively recent; you did well in the class or work; and is someone you had contact with them outside of just the classroom (so the prof got to know you a bit beyond your classroom participation).

The professor may say no for any number of reasons, notably: they don't have time, they don't feel that they know you well enough, or they're not confident that they can write you a strong letter for this position. (Some profs will tell you that they can write you a letter but will warn you that it will not be a super enthusiastic letter or that it will acknowledge challenges or limitations; then you get to decide whether you still want this professor to write for you.) If they say no, don't take it personally, and make sure you have time to move on to the next possible letter-writer.