University at Buffalo
Department of Economics
College of Arts and Sciences

UNDERGRADUATE PROGRAM BROCHURE

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Overview

This brochure is an assemblage of information that answers many of the questions asked about the Department of Economics' undergraduate degrees and courses. Not every question can be answered in one brief document so, if you would like additional information, then please contact either the department's undergraduate advisor, Yue Yin (Fronczak 435, ecoug@buffalo.edu) or the Director of Undergraduate Studies in Economics, Professor Joanne McLaughlin (Fronczak 441, jsmclaug@buffalo.edu).

I. An Introduction to Economics

A. What is Economics?

Economics is the study of scarcity and its implications for the use of resources, production of goods and services, growth of production and welfare over time, and a great variety of other issues of vital concern to society. The central quest of economics is to determine the most effective use of resources to meet private and social goals. Production and employment, investment and savings, health, fertility, money and the banking system, government policies on taxation and spending, international trade, industrial organization and regulation, urbanization, environmental issues, and legal matters, such as the design and enforcement of property rights, are but a sampling of the concerns at the heart of the science of economics.

In a world with finite resources and a large and growing human population, it is increasing by the case that arable land, clean water, clean air, and other life-sustaining resources are strained. Overfishing in the high seas has badly depleted fish stocks. Energy demands have led to increased air pollution, particularly from burning coal that is now causing planetary warming, rising seas and increasingly extreme weather events. At the same time, technological advances have taught us better methods for using resources and have shown us new ways to achieve our goals while averting potential disasters. How to utilize these advances to curb these potentially catastrophic trends is a matter for a variety of scientists, including economists.

Economics is used in one's personal life because personal resources are scarce too. One can always use another dollar, an extra hour of time, or another skill. Achieving the most satisfactory allocation of one's resources is a fundamental life-skill. Studying allocation problems improves one's ability to make daily decisions, as well as the occasional larger one. For example, should one pay cash, borrow, or sign a lease contract to get that car? Should one take out a home-equity loan to obtain funds to invest in the stock market? Should one open a 401K plan now or wait a year? Economists understand how to make these decisions.

B. Economics is Not Just for Economists

Economics is a science that overlaps with many other sciences, including political science, geography, mathematics, sociology, psychology, engineering, law, medicine, and business studies. We offer several introductory courses that benefit students in these other sciences. Some examples are ECO 209 Introduction to Urban Economics, ECO 208 Introduction to Environmental Economics, and ECO 211 Introduction to Health Economics. ECO 181 Introduction to Macroeconomics and ECO 182 Introduction to Microeconomics allow anyone to become familiar with the essential basics of economics and to begin to decide for oneself the desirability of policies implemented by our governments. Our 300- and 400-level courses can be taken by any students who meet the prerequisites. Many students who are not economics majors find that studying economics and

learning how to use economic analytical methods greatly complements their knowledge of their primary fields of study.

C. Careers in Economics

The most popular careers in economics are in financial services, including brokerage firms (*e.g.* Merrill Lynch), investment banks (*e.g.* JP Morgan), retail banks (*e.g.* M&T Bank), and insurance companies (*e.g.* AIG). Jobs in finance can be classified into sales (*e.g.* financial advisor) and analysis (*e.g.* financial analyst). However, economics is applicable to so many disciplines that our graduates work in a wide variety of sectors, such as consulting, retail management, consumer goods industries, advertising, publishing, the health sector, not-for-profit research organizations, U.S. government agencies (local, state, and federal), and various organizations such as the World Bank, United Nations agencies, and the International Monetary Fund. There are so many choices that it is difficult to list them all. The American Economics Association provides a lot of useful information on careers for economists at https://www.aeaweb.org/resources/students/careers/.

The demand for economists has increased steadily over the past decades. There are several reasons for this. Foremost is the transition over the past sixty years of economics into an applied science, a change made possible by powerful computers, advanced mathematical and statistical software, and the collection of detailed datasets by government agencies such as the Bureau of Labor Statistics, research organizations such as the National Bureau of Economic Research, and universities such as UB. The well-trained economics graduate today offers to employers analytic insights that were previously unavailable. Second is the ever-wider application of economic analysis. Organizations that never thought in economic terms now find themselves having to do so. Not least is the unhappy fact that resources are evermore scarce in our world, so knowing how best to use them grows continually in importance. Economics is a science whose time is here. The need for economists is strong and is increasing at a rapid pace. Graduates with BAs in Economics on average earn starting salaries higher than those for BA graduates in most other subjects.

Employment options are more plentiful and valuable for graduates with high GPAs and more economics courses to their credit than those who achieve only the minimum graduation requirements. For example, a student who graduates with a GPA of barely 2.0 and the minimum requirement of 35 credits in economics is employable, but less so than a peer who studied more economics and achieved a higher GPA. That being said, economics graduates overall enjoy good job market prospects. Students in the graduating class of 2016 who earned bachelor's degrees in economics enjoyed an average starting salary of nearly $50,000, which, according to a 2016 survey by the National Association of Colleges and Employers *(NACE)*, exceeds all other starting salaries in the Social Sciences. http://www.naceweb.org/s04062016/top-paid-social-sciences-major-economics.aspx. The survey is summarized in the following table:

Discipline	**Average Starting Salary**	**Change from Previous Year**
Chemical Engineering	$63,773	+7.7%
Computer Science	$61,110	+15.2%
Computer Engineering	$60,280	+7.8%
Industrial Manufacturing / Engineering	$57,740	+5.8%
Mechanical Engineering	$57,024	+5.5%
Civil Engineering	$51,780	+5.7%
Management Information Systems	$51,489	+8.4%
Economics	**$51,062**	**+6.9%**
Nursing	$50,260	+11.6%

Finance	$48,158	+3.7%
Accounting	$48,020	+3.7%
Business Administration	$46,171	+6.7%
Marketing	$41,506	+5.7%
Political Science / Government	$38,844	+10.2%
Biological / Life Science	$35,522	+4.6%
English / Literature	$35,454	+11.1%
Psychology	$34,090	+7.0
Elementary Education	$34,059	+1.6

The Bureau of Labor Statistics' *Occupational Outlook Handbook* (which can be found at https://www.bls.gov/ooh/life-physical-and-social-science/economists.htm) reports that the median annual pay for economists was $102,490 for 2017 and that already strong employment is projected to grow annually at about 6% over at least the next decade. The Handbook provides comparative income data and projected employment changes for many other professions also.

II. B.A. in Economics

We urge students majoring in Economics to avoid undue specialization. Consider taking courses in related subjects, such as English, Political Science, and Mathematics. College is an opportunity like no other. Students are free to explore a vast variety of topics and widen their understandings of the world. This is hard to do once you are employed.

A. Acceptance Criteria

As of the fall 2019 semester, the Economics Department employs a "direct admission" process to anyone interested in joining the economics major. This allows any student to admit him- or herself into the economics major. This direct admission process will become available for the economics minor in spring 2020. Students must fill out the ECO Major / Minor Declaration Form (available electronically on the departmental website on the "forms" page or in hard copy form outside the Economics main office at 415 Fronczak Hall on UB's north campus). The completed form allows the Department to communicate directly with its majors so that they can immediately be provided with valuable information. The completed form should be placed in the drop box outside of the Undergraduate Advisor's office (Fronczak 435).

Students considering a major in Economics should consult the economics undergraduate advisor, 435 Fronczak Hall, to obtain up-to-date information about the major's requirements. The advisor can assist with course planning.

The Department of Economics currently offers three programs for economics majors. The first is the standard B.A. program. This is intended for the majority of majors who typically seek a liberal arts education. The second and third are masters programs, intended for majors who are considering graduate work in Economics. All three programs prepare students to use economics in government and business, and to think analytically about economic problems. These skills are further developed in our masters programs.

A B.S. in Economics will be offered starting in the fall 2020 semester. A minor in Economics is also available.

B. Graduation Requirements

To earn a B.A. in Economics students must achieve:

- a GPA of at least 2.5 for their economics courses.
- the 35 required economics credits requirement set out in the following table.
- at least 120 university credits with an overall GPA of at least 2.0.
- all of UB's other graduation requirements.

We encourage students to view their HUB reports frequently to monitor progress towards meeting these requirements. Do not hesitate to meet with an academic advisor to address any uncertainties.

C. Standard B.A. in Economics - 35 Credits

	STANDARD B.A. IN ECONOMICS	**Credits**
Prerequisite	MTH 121, or MTH 131, or MTH 141	4
Required Courses	ECO 380 Economic Statistics and Data Analysis ECO 405 Microeconomic Theory ECO 407 Macroeconomic Theory ECO 480 Econometrics I	3 3 3 3
Upper Level Electives	Five (5) additional Economics courses at the 400-level. These cannot include ECO 495 (Undergraduate Supervised Teaching) or ECO 496 (Internship in Economics). A maximum of three (3) credits may be from ECO 499 Independent Study or ECO 498 Undergraduate Research. ECO 406 is required to graduate with Honors in Economics and can be used as an upper level elective course.	15
Other Economics Electives	Economics courses at any level, including ECO 495 and ECO 496.	8
Permitted Substitutions for ECO 380	Option A: MTH 411 or STA 301 together with MTH 412 or STA 302 Option B: GEO 211 Option C: CIE 308	
Total Economics Credits Required		**35**
Total B.A. credit Requirement		**120**

D. B.A. in Economics for Graduate School Preparation

Graduate programs in Economics are increasingly oriented towards applied economics. This is the synthesis of economic theory and economic data that is achieved by applying advanced statistical methods to test and to implement theory for policy purposes. These methods require significant mathematical skills. The Economics-Mathematics joint major provides such a study path, as do the Masters in Applied Economics and Masters of Science in Economics programs. Students interested in graduate school preparation should consult the Director of Undergraduate Studies for advice. A GPA of at least 3.0 for economics courses is required to enroll in "H" (*i.e.* Honors) course sections.

	ECONOMICS MAJORS CONSIDERING GRADUATE ECONOMICS STUDY	Credits
Prerequisites	MTH 141 College Calculus 1 MTH 142 College Calculus 2	4 4
Required Courses	ECO 380 Economic Statistics and Data Analysis ECO 405H Microeconomic Theory ECO 406H Topics in Microeconomics* ECO 407H Honors Macroeconomic Theory ECO 480H Econometrics I, or MTH 411 - Probability Theory with MTH 412 - Introduction to Statistical Inference *This course is required to graduate with Honors in Economics	3 3 3 3 3 or 8
Upper Level Electives	Five (5) additional Economics courses at the 400-level. These cannot include ECO 495 and ECO 496. A maximum of 3 credits may be from ECO 499 Independent Study or ECO 498 Undergraduate Research.	15
Other Economics Electives	Economics courses at any level.	8
Total Economics Credits		**38**
Total Credits	----------	**46 or 51**
	Other Mathematics Electives: It is recommended that students considering graduate studies in economics take additional mathematics courses, particularly MTH 309 Introduction to Linear Algebra and MTH 431 Introduction to Real Variables I.	

E. Advice for Economics Majors

We recommend that students pursuing the B.A. in Economics consider the following:

- **ECO 181 Introduction to Macroeconomics** and **ECO 182 Introduction to Microeconomics** are introductory economics courses that assume no prior knowledge and have no prerequisites. These are the best place to commence the study of economics. It does not matter which course is taken first. Passing both of these 4 credit courses satisfies the "Other Economics Electives" requirement of the economics major.

- **ECO 405 Microeconomic Theory** and **ECO 407 Macroeconomic Theory** are required intermediate level courses for the economics major. They are prerequisites for most of the 400-level economics electives and therefore should be taken as early as possible. The only prerequisite for ECO 405 and ECO 407 is MTH 121 or MTH 141 or MTH 131, but the knowledge gained in ECO 181 (Introduction to Macroeconomics) is helpful in ECO 407, and the knowledge gained in ECO 182 (Introduction to Microeconomics) is helpful in ECO 405.

- **ECO 380 Economic Statistics and Data Analysis** is a required course for the economics major. It presents basics of statistics, probability theory, sampling, estimation and hypothesis testing. **ECO 480 Econometrics I**, which is also a required course, uses this knowledge to introduce students to econometric methods, the primary estimation and inference tools of applied economics, so that students may add value to their education by acquiring applied economics skills. These are valuable skills that are strongly sought by employers. ECO 480 is a prerequisite for several upper-level elective Economics courses.

- **ECO 496 Internship in Economics** is a way to obtain work experience while earning credit towards the B.A. in Economics. This course counts towards the "any-level electives" requirement of the economics major. See section G.

F. Advice for Students Interested in Selected Areas

We recommend that students interested in a career in **finance** take the following upper-level elective economics courses:

- **ECO 425 Money and Financial Institutions** provides an explanation of the Federal Reserve System, commercial banking, and financial products. Emphasized topics include measuring and managing the risks faced by commercial banks, with particular focus on the global financial system. Case studies will be presented. *Prerequisite:* ECO 407.

- **ECO 426 Capital Markets and Financial Institutions** provides an overview of financial decision making by individuals and by firms. The course then investigates the way these decisions are implemented through financial systems. The key concepts are resource allocations over time, evaluations of cash flows, risk management, project evaluation, and asset pricing models. *Prerequisite:* ECO 405.

- **ECO 434 International Finance** introduces basics needed to understand the functioning of the global economy and international financial markets. The course develops a framework for analysis of current account deficits, international capital movements, and real and nominal exchange rates. Also examined are the relationships between interest rates and exchange rates, and policy issues such as external debt crises and balance-of-payment difficulties. *Prerequisite:* ECO 407.

- **ECO 461 Economic Fluctuation and Forecasting** introduces important topics in economic fluctuations and forecasting. Topics covered include ordinary least squares techniques, time series and trends, seasonal patterns, autoregressive and moving average processes, and forecasting models. Real data are used with each topic. *Prerequisite:* ECO 480. ECO 407 recommended.

- **ECO 490 Monetary Theory** commences by examining why fiat currencies have become ubiquitous everywhere when, by themselves, they are worth very little. It is shown that introducing a currency into an economy without a currency greatly improves the functioning of that economy by serving as a medium of exchange and making markets function far more efficiently, and achieving much greater gains from trades. The course then considers the roles that money plays in inflation, central banking, the international finance system, saving, investment, production, and government policies. *Prerequisite:* ECO 407.

We recommend that students interested in a career in **corporate law** take the following courses:

- **ECO 406 Topics in Microeconomics** extends the content of ECO 405 to a variety of more advanced topics, such as imperfect markets, strategic behavior (game theory), making choices with incomplete information, investment decisions, general equilibrium analysis, and externalities and public goods. *Prerequisite:* ECO 405.

- **ECO 425 Money and Financial Institutions** provides an explanation of the Federal Reserve System, commercial banking, and financial products. Emphasized topics include

measuring and managing the risks faced by commercial banks, with particular focus on the global financial system. Case studies will be presented. *Prerequisite:* ECO 407.

- **ECO 469 Industrial Organization** studies types of industries and the behaviors of firms in the industries; *e.g.*, pricing, production, marketing, investment, and research and development. The strategic abilities of competing firms to affect each other's behaviors is examined closely. This helps to understand why different industries often take different forms. Understanding these topics helps students to become better managers, industry analysts, investors and policy makers. *Prerequisite:* ECO 405.

- **ECO 464 Public Economics** uses cost-benefit analysis to explain why a public sector can more efficiently supply certain types of beneficial commodities and services (*e.g*., national defense, courts) and can better reduce the supply of harmful commodities (*e.g*., air pollution) than can a private sector. The course then considers the merits and demerits of various ways to fund these beneficial activities (*e.g*., voluntary donations, taxation, user fees). *Prerequisite:* ECO 405.

G. Internship in Economics

ECO 496 Internship in Economics. This course is not conducted in a classroom. A student first arranges an internship in the private or public sector. The internship must have a strong economics content. The student then must submit an application to the Director of Undergraduate Studies in economics for internship credit. The Director's written approval must be obtained before the start date of the internship.

H. Undergraduate Teaching

ECO 495 Undergraduate Supervised Teaching. Students who have at least junior status and have satisfied the department's prerequisites may apply to serve as undergraduate teaching assistants. Under the supervision of the professor, an undergraduate teaching assistant will lead discussion sections, answer students' questions, may hold office hours, and participate in preparing assignments. The basic requirements include, but are not limited to:

- At least junior standing.
- A university cumulative GPA of at least 3.3.
- An economics cumulative GPA of at least 3.3.
- Written permission from the instructor of the course in which the student wishes to be a TA.
- A grade of at least an A- in the course for which the student wishes to assist.

I. Independent Study

ECO 499 Independent Study involves development of an inquiry into an economic topic of particular interest to the student, and in a depth not currently offered through regular coursework. A faculty member must provide a letter to the Director of Undergraduate Studies affirming that he or she is willing to mentor the student's inquiry. The letter must stipulate the topic and describe the proposed conduct of inquiry, method of grading, and duration of the project. The student must co-sign the letter.

J. Undergraduate Research

ECO 498 Independent Research. Students with excellent records in economics may participate in faculty research projects or conduct their own original research under the supervision of a faculty mentor, thereby gaining firsthand experience in economic research. Interested students should consult the Director of Undergraduate Studies and the faculty person with whom they wish to conduct research.

K. Honors in Economics

The Economics Department will nominate for "Honors in Economics" majors who have taken ECO 406 Topics in Microeconomics and whose GPA in Economics is at least 3.25 (Honors), 3.50 (High Honors) or 3.75 (Highest Honors).

Students whose economics and overall GPAs are both at least 3.0 are eligible for membership in Omicron Delta Epsilon, the international honors society in Economics. The minimum membership requirements for undergraduates are:

- Completion of 12 credit hours of economics courses.
- Attainment of at least a "B" average (3.0) in economics courses and an overall "B" average (3.0) in all classes, and a "class standing" in the upper one-third.

Note: Students do not have to be economics majors, but must have a genuine interest in economics in addition to meeting the above requirements.

Please see the Economics Department's website for more information; http://arts-sciences.buffalo.edu/economics/undergraduate/honors-program.html

L. Taking Honors Classes

Honors class sections are indicated by an H as the section name. GPAs of at least 3.0 are required both overall and across economics courses to enroll in an Honors section. To enroll, a student must complete a force registration request form (available on the Department's website) and bring it to the Economics Department's main office at 415 Fronczak.

M. Undergraduates Taking Graduate Level Classes for Graduate Credit

Undergraduates may take up to 8 credit hours of masters level work to use towards a future graduate degree (this does not apply to students in the B.A./M.A. and B.A./M.S. programs). To enroll in a graduate course for graduate credit an undergraduate student must have an economics GPA of at least 3.0 and obtain permission from both the Director of Undergraduate Studies and the Director of the Masters Programs.

The credits that undergraduate students receive from passing a graduate class are used for graduate credit unless the student specifies that the graduate credits are to be used as undergraduate credits. The credits cannot be used as both graduate and undergraduate credits (no double dipping).

N. Undergraduates Taking Graduate Level Classes for Undergraduate Credit

To take a graduate course for undergraduate credit an undergraduate student must have both an overall cumulative GPA and an economics cumulative GPA of at least 3.0, and must obtain permission from both the Director of Undergraduate Studies and the Director of the Masters Programs. Additionally, an undergraduate student must submit a petition requesting undergraduate credit for a graduate course to the Office of the Vice Provost for Undergraduate Education. Petition forms can be found online at the Registrar's website (https://registrar.buffalo.edu/pdfs/OutsideofCareerPetition.pdf) as well as from the Main Office of the Economics Department, Fronczak 415.

An undergraduate student can petition to use any number of graduate credits as undergraduate credits. Petition approval is at the discretion of the Economics Department and the Office of the Vice Provost for Undergraduate Education.

O. Study Abroad

It is difficult to understand and appreciate the world when one has lived, studied, or worked in only one country. Studying abroad provides a fascinating, lifetime experience. It is an opportunity to see how life is viewed from another perspective, to develop first-hand knowledge of another economy, and to witness how people in other countries regard the United States and its citizens. Undergraduates are encouraged to begin planning early to spend a summer, a semester, or even a year in another country. Credits from courses passed while abroad can be used towards meeting economics major requirements (excluding the upper-level elective requirement) provided that UB offers a course which, in the judgment of the Director of Undergraduate Studies, is equivalent to the foreign course.

UB Study Abroad Programs has a website with information on more than 400 overseas academic programs available through the SUNY system. Study Abroad advisors are available to assist you in 201 Talbert Hall, or via e-mail at studyabroad@buffalo.edu.

P. Transfer Policy

Every UB economics major must pass at least fifteen upper level (*i.e.* 300 level or higher) economics elective credits, at UB. Transfer credits may be given towards the following courses:

- ECO 181 Introduction to Macroeconomics
- ECO 182 Introduction to Microeconomics
- ECO 380 Economic Statistics and Data Analysis
- ECO 405 Microeconomic Theory
- ECO 407 Macroeconomic Theory
- ECO 480 Econometrics I
- "any-level" economics electives.

Students who wish to obtain transfer credits for courses taken at another university or college must apply to UB's TAURUS system. You must provide an informative course description or syllabus for each course and make an articulation request at Capen 1. Before doing so, look at the TAURUS webpage, taurus.buffalo.edu, for helpful information.

III. Joint Majors

A joint major allows a student to broaden the scope of his or her undergraduate education. Economics and Mathematics offer a structured joint major into which a student may directly self-admit. See Table B. Students may also propose joint majors. Each must involve completing approximately two-thirds of the standard economics major requirements. Students in joint major programs are eligible for Honors nominations in the same way as other economics majors.

Joint majors must be between programs leading to the same degree. For example, a student may not join a program of study leading to a B.A. and also a program leading to a B.S. Additionally, the joint major must be with a field that is complementary to economics. The Director of Undergraduate Studies in economics shall determine whether this is so.

A joint major must be approved by the Directors of Undergraduate Studies in both departments, so both directors must be consulted. Graduation requirements will be imposed by both departments.

IV. Double Majors

A double major is the awarding of a degree with two majors. The double major that includes economics must currently be with a major leading to the B.A. (not, for example, to the B.S.). Students must be accepted into the economics major and the other B.A. major. From fall 2020, this will be extended to awarding the B.S. with two majors. Students who choose a double major must fulfill all of the requirements of both the economics major and of the other major, and satisfy all of the UB graduation requirements. This may be completed within the usual 120-credit minimum. Following conferral of the degree, the student's transcript will note a bachelor's degree with two majors.

V. Double Degrees

A double degree is the concurrent awarding of two different baccalaureate degree types; *e.g.*, a B.A. in Economics with a B.S. in Business Administration. Students must be accepted into the Economics major and the other degree program. Graduation requires completing all of the graduation requirements for each major. The coursework in the second degree must be at least 30 credits. No more than two 300- and 400-level courses taken as requirements for one of the majors can also be counted as part of the required courses for the other major, including required electives. Students who wish to earn a double degree must accrue at least the larger of:

(i) 30 credits beyond the full requirements of the degree with the larger number of required undergraduate credits, or

(ii) a total of 150 credits.

A. Joint Major Requirements in Economics (B.A.)

	STANDARD JOINT MAJORS IN ECONOMICS (B.A.)	Credits
Prerequisites	MTH 121 or MTH 131 or MTH 141	4
Required Courses	ECO 405 Microeconomic Theory ECO 407 Macroeconomic Theory ECO 380 Economic Statistics and Data Analysis ECO 480 Econometrics I	3 3 3 3
Upper Level Electives	Three (3) additional economics elective courses at the 400-level, excluding ECO 495, 496, 498 and 499. ECO 406 is required in order to graduate with Honors and can be used as an upper level elective course.	9
Any-Level Economics Electives		6
Permitted Substitutions for ECO 380	Option A: MTH 411 or STA 301 together with MTH 412 or STA 302 Option B: GEO 211 Option C: CIE 308	
Economics Credits		**27**
Total Credits		**31**

B. Joint Major Requirements for MTH-ECO Degree (B.A.)

	ECONOMICS - MATHEMATICS JOINT MAJOR (B.A.)	Credits
Required **Economics** Courses	ECO 405 Microeconomic Theory I ECO 406 Microeconomic Theory II ECO 407 Macroeconomic Theory ECO 480 Econometrics I	3 3 3 3
Economics Upper Level *Electives*	Three (3) additional courses at the 300-level or above, **excluding** ECO 495, ECO 496, ECO 498 and ECO 499.	9
Required **Mathematics** Courses	MTH 141 College Calculus I MTH 142 College Calculus II MTH 241 College Calculus III MTH 306 Introduction to Differential Equations MTH 309 Introduction to Linear Algebra MTH 311 Introduction to Higher Mathematics MTH 411 Probability Theory MTH 412 Introduction to Statistical Inference MTH 419 Introduction to Abstract Algebra (or MTH 420 Abstract Linear Algebra) MTH 431 Introduction to Real Variables I	4 4 4 4 4 4 4 4 4 4
Mathematics *Electives*	One **(1)** 300 or 400-level Mathematics course **excluding** MTH 417. Students should contact the **Mathematics Department** to check the continued applicability of Mathematics requirements.	3-4
Total Economics Credits		21
Total Mathematics Credits		43 - 44
Total Credits	18 courses in economics and mathematics	64 - 65