Economics Department

Chairperson
Juan Carlos Conesa, Ward Melville Social and Behavioral Sciences Building, N-649, (631) 632-7549

Ph.D Program Director
Steven Stern, Ward Melville Social and Behavioral Sciences Building, N-621 (631) 632-1328

MA Program Director
Eva Carceles-Poveda, Ward Melville Social and Behavioral Sciences Building S-629 (631) 632-7533

Graduate Program Coordinator
Maryann Calvacca, Ward Melville Social and Behavioral Sciences Building S-607, (631) 632-7537

Degree Awarded
Ph.D. in Economics
M.A. in Economics

Web Site
http://www.stonybrook.edu/economics/

Economics Department

The graduate program in Economics, in the College of Arts and Sciences, emphasizes rigorous training in economic theory and quantitative methods and their creative applications. Both theoretical and empirical work is heavily based on mathematical modeling. In addition to core courses, students choose elective courses from the variety of fields offered in theoretical and applied economics. It is through these courses that breadth of economic knowledge is gained. Both Ph.D. and M.A. programs share the same courses.

The program of study does not depend on prior knowledge of economics, though that is useful. Because of its emphasis on mathematical modeling, the graduate program is highly suitable for those whose undergraduate degrees are in physics, engineering, and mathematics. Those whose undergraduate degrees are in economics usually have to take a number of mathematics courses at a level not usually required for their undergraduate degree in order to be prepared for a graduate program.

Financial Support and application deadlines

Students in the M.A. program do not receive financial support and are expected to pay tuition. Ph.D. students may receive financial support for up to four years of study and a tuition waiver for the entire duration of their study. The number of openings for the Ph.D. program is small and acceptance is very competitive. Students who do well in the advanced M.A. program (see M.A. program details) are prime candidates to be accepted into the Ph.D. program upon completion. Since the course requirements for both programs are almost identical they would only need to complete the teaching practicum and the research workshop (see Ph.D. program details) and can start their research immediately.

All admissions are for the academic year starting in September. Applicants to the Ph.D. program seeking financial aid are required to apply by January 15. Applications for the M.A. program are accepted until May 1 for foreign students and August 1 for domestic students.

Admission requirements of Economics department (for both Ph.D and M.A. programs)

All first year courses are mandatory and follow a two semester sequence. Thus the program admits students only for the Fall semester. Minimum requirements to be considered for admission, in addition to the minimum Graduate School requirements, are as follows, although exceeding these requirements increases the probability of admission:

A. A bachelor’s degree, with an average of at least B in the undergraduate major subject, which need not be economics. Applicants with majors in mathematics, the physical sciences, or engineering are encouraged.

B. At least one year of introductory differential and integral calculus and at least one semester of linear algebra in courses whose level is that required for physics majors in research universities with proficiency demonstrated by a grade of at least B in the courses. Additional semesters of multivariate calculus are highly recommended. Further mathematics such as real analysis and topology are very helpful.

C. Letters of recommendation from three instructors or academic advisors. The referees should be able to evaluate the mathematical preparation and ability of the applicant.

D. Submission of results of the Graduate Record Examination (GRE) General Test (verbal, quantitative, and analytical parts). Applicants with quantitative scores below the 80th percentile are generally not admitted.

E. Non-native speakers of English only: submission of results of the TOEFL examination, with a minimum score of 550 (paper), 213 (computer) or 90 (iBT). In addition, a score of at least 40 in the SPEAK test which can be taken upon arrival.

Students should be aware that admitted students generally exceed these requirements. However, students who do not meet or exceed all these requirements may apply if they think that their preparation as a whole shows they are capable of succeeding in the graduate program.

Requirements for the M.A. Degree in Economics
Fall year I
ECO500 Microeconomics I
ECO510 Macroeconomics I
ECO520 Mathematical Statistics
ECO590 Mathematical foundations of contemporary Economic Theory

Spring year I
ECO501 Microeconomics II
ECO511 Macroeconomics II
ECO521 Econometrics
ECO531 Introduction to Computational Methods in Economics

For the basic program in the second year students will take at least three more courses.
ECO522 Applied Econometrics (F)
ECO597 master's project

The third course will be one of the electives offered in either the Fall or the Spring semester (please see list below). Some of these courses are offered in the evening, thus making the program attractive to part timers. No courses are offered in the summer.

Elective courses:
ECO604 Game Theory I (F)
ECO605 Game Theory II (S)
ECO610 Advanced Macroeconomic Theory I
ECO612 Computational Economics & Dynamic Modeling
ECO613 Computational Macroeconomics
ECO636 Industrial Organization I (F)
ECO637 Industrial Organization II (S)
ECO640 Advanced Labor Economics Theory I (F)
ECO641 Advanced Labor Economics Theory II (S)
ECO642 Demographic Economics I
ECO643 Demographic Economics II
ECO645 Health Economics I
ECO646 Health Economics II (S)

For the Concentration in Industrial Strategy students will take the following courses in their second year:

Fall year II
ECO522 Applied Econometrics
ECO604 Game Theory I
ECO636 Industrial Organization I

Spring year II
ECO605 Game Theory II
ECO637 Industrial Organization II
ECO597 master's project
For the **Concentration in People Markets and Government** students will take the following courses in their second year:

**Fall year II**
- ECO522 Applied Econometrics
- ECO640 Labor Economics I
- ECO642 Demography

**Spring year II**
- ECO641 Labor Economics II
- ECO645 Health Economics
- ECO597 master's project

For the **Concentration in Macroeconomic Policy** students will take the following courses in their second year:

**Fall year II**
- ECO522 Applied Econometrics
- ECO612 Computational Economics & Dynamic Modeling
- ECO613 Computational Macroeconomics

**Spring year II**
- ECO610 Advanced Macroeconomic theory I
- ECO597 master's project

One elective course of the existing list:
- ECO604 Game Theory I (F)
- ECO605 Game Theory II (S)
- ECO636 Industrial Organization I (F)
- ECO637 Industrial Organization II (S)
- ECO640 Advanced Labor Economics Theory I (F)
- ECO641 Advanced Labor Economics Theory II (S)
- ECO642 Demographic Economics I
- ECO643 Demographic Economics II
- ECO645 Health Economics I
- ECO646 Health Economics II (S)

Requirements for the Ph.D. Degree in Economics

The goal of the Ph.D. program is to develop the capability of each student to conduct independent research and analysis. To this end the program has three phases: (1) a general foundation in economic theory and quantitative methods starting from the basics but done in a very mathematical way, (2) specialization in two or more fields of theoretical or applied economics, and (3) independent research culminating in the doctoral dissertation. These are not totally distinct phases but indicate the natural order of progression. Coursework is supplemented by independent study and research seminars. Throughout the program students have advisors to consult in developing a study plan that best meets their needs.

The Ph.D. degree requirements are as follows:

**A. Course Requirements**

A minimum of 15 courses in economics (including core courses) must be completed, with a grade of B or better in each elective course. Included in the elective courses must be at least two in each of two approved pairs of courses forming fields (listed below). However, the Ph.D. committee may approve a waiver of part of the 15-course requirement for students with graduate work elsewhere.
1. Core Courses: The courses that provide the foundation in economic theory (micro and macro) and quantitative analysis (mathematical methods, statistics, and econometrics) are referred to as core courses. Comprehensive examinations are taken in microeconomics, macroeconomics, and econometrics at the end of the first year of study.

2. Elective Courses and Fields of Specialization: In addition to core courses, normally at least six elective courses must be taken, including two pairs of courses, where each pair forms an approved field. It is usual but not necessary that a dissertation topic be chosen from one of these fields of specialization. The two elective fields must be satisfactorily completed by the end of the sixth semester. One field may be completed on the basis of an average grade of B+ or higher in the courses in that field. At least one field must be completed by passing a written comprehensive exam. Fields currently offered by the department are composed of courses in game theory, industrial organization, applied econometrics, labor economics, health economics, demographic economics, computational methods, and computational macroeconomics.

**B. Second Year Paper, Seminars, and Workshops**

Each student must write a successful research paper during the second year. Each student takes a research workshop in the fifth semester. The purpose of this workshop is to provide a structured introduction to research methodology. In addition, participation in program seminars and research workshops is considered an essential part of a student’s progress toward the doctorate. Seminars in economic theory and applied economics are presented on a regular basis by faculty, visitors, and graduate students. Workshops oriented toward thesis research are conducted by faculty and students working in related areas.

**C. Advancement to Candidacy**

Advancement to candidacy for the Ph.D. is achieved by satisfactory completion of most course requirements specified in item A, above, and the successful work on the second year paper. Advancement to candidacy normally must be achieved by the end of the fourth semester.

**D. Dissertation**

A dissertation, presenting the results of original and significant research, must be approved. An examination on a dissertation proposal research must be passed by the end of the sixth semester of study. The examination is both written and oral, and its syllabus is to be determined by the student’s dissertation committee in consultation with the student. Final approval of the dissertation will be by a committee including the candidate’s principal advisor, two other department members, and one member from another department. The results of the dissertation will be presented at a colloquium convened for that purpose.

**E. Teaching**

The program is committed to achieving a high quality of teaching and encourages all graduate students to acquire teaching experience during their graduate studies. The department operates a training program to prepare teaching assistants for classroom instruction.

**F. Time Limit**

If the degree requirements have not been met within five years of entry into the program, departmental approval is required for continuation in the program.

**G. Dismissal Policy**

A student may be dismissed from the program at the end of any semester in which he or she does not achieve a semester or cumulative B average or fails to meet the pertinent requirements for the Ph.D. as specified.

Faculty of Economics department

Professors

Brusco, Sandro, Ph.D., 1993, Stanford: Mechanism design, corporate finance, political economy.

Dubey, Pradeep, Ph.D., 1975, Cornell University: Game theory; mathematical economics.

Montgomery, Mark, Ph.D., 1982, University of Michigan: Economic demography; development economics; econometrics.

Rizzo, John (joint with the Department of Preventive Medicine) Ph.D., 1985, Brown University: Health economics, public health.

Sanderson, Warren C., Ph.D., 1974, Stanford University: Economic demography; economic history; labor economics.

Stern, Steven, Ph.D., 1985, Yale University: Labor economics; econometrics; economics of aging and disability.

Tauman, Yair, Ph.D., 1978, Hebrew University, Jerusalem: Industrial organization; game theory.

Associate Professors

Azzimonti, Marina, Ph.D., 2004, University of Rochester: Macroeconomics, political economy.

Benítez-Silva, Hugo, Ph.D Program Director, Ph.D., 2000, Yale University: Labor economics, computational economics.
Cárceles-Poveda, Eva, Ph.D., 2001, Universitat Pompeu Fabra: Macroeconomics, financial economics, international economics.
Conesa, Juan Carlos, Chairperson, Ph.D., 1999, University of Minnesota: Macroeconomics; computational economics.
Dawes, William, Ph.D., 1972, Purdue University: Econometrics; economic history.

Assistant Professors
Centorrino, Samuele, Ph.D., 2013, Toulouse School of Economics: Quantitative Economics and econometrics
Liu, Ting, Ph.D., 2008, Boston University: Applied Microeconomic Theory, industrial organization, health economics
Zhou, Yiyi, PhD., 2012, University of Virginia: Industrial Organization, applied econometrics

Visiting Professors
Roberto Burguet, Ph.D., 1988, Stony Brook University, SUNY: Industrial economics; auction theory; corruption.
Gabriel Mihalache, Ph.D., 2016, University of Rochester: International economics; macroeconomics; computational economics.
Nuria Quella Isla, Ph.D., 1995, New York University: Economic growth and development; environmental economics; international economics.

NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.