

# MASTER OF SCIENCE IN QUANTITATIVE ECONOMICS

Graduate Coordinator: Dr. Kirill Chernomaz

## Program Learning Outcomes

1. Advanced Economic Analysis. Graduates will apply advanced microeconomic and macroeconomic theories to analyze complex economic problems and policy issues.
2. Quantitative Methods Proficiency. Graduates will demonstrate proficiency in econometric modeling, data analysis, and computational methods to conduct empirical economic research.
3. Research and Professional Skills. Graduates will design and execute research projects that contribute to economic knowledge, effectively communicating findings to diverse audiences.

## Admission to Program

For admission to the graduate program in economics, a student must meet, at a minimum, the general University requirements as stated in this *Bulletin*. To qualify for classified status, a student must satisfy the following criteria:

- Earn a 3.0-grade point average in an undergraduate major in economics (or equivalent);
- Complete courses in intermediate micro and macro theory (ECON 301 and ECON 302 or equivalents) with grades of B or better;
- Complete a semester of calculus (MATH 226 or equivalent) with a grade of B or better;
- Complete a semester-length course in Statistics (DS 212/ECON 212 or equivalent) and in Econometrics (ECON 312 or equivalent) with a grade of B or better in each.

Students who do not have B grades in all of the above five courses, or who did not major in economics but earned an overall grade point average of 3.0 or better, may be admitted conditionally. Students admitted conditionally cannot apply courses taken to satisfy the program prerequisites toward their graduate program.

Students applying to the graduate program must submit the following materials:

- Transcripts from all colleges and universities attended;
- Two or more letters of recommendation, preferably from professors the applicant has taken one or more courses with; and
- A personal statement.

For more detailed information about admission to the MS Program and how to apply, please visit the Economics Department MSQE website: <http://cob.sfsu.edu/economics/graduate-programs>

## Written English Proficiency Requirements

The University requires that graduate students must demonstrate both initial English proficiency (level one) upon entrance to graduate study and an advanced English proficiency (level two) prior to graduating.

### Level One

Prior to admission, students must satisfy at least one of the following: an undergraduate or graduate degree from an institution located in a country in which the native language is English; a score of at least 4.0/6.0 on the

GRE or GMAT Analytic Writing Assessment; a minimum score of 24/30 on the Writing section of the Internet-based test (IBT) TOEFL; or a score of at least 6.5/9.0 on the IELTS writing test, or a concordant score on the Pearson Test of English.

Students not meeting this requirement may be admitted conditionally upon completion of an appropriate English writing class during their first semester

### Level Two

Demonstration of advanced level proficiency is an integral part of the Written Comprehensive Exam.

## Advancement to Candidacy

Besides meeting all general requirements for advancement to candidacy, students must earn a minimum of a B in all core courses and earn an overall minimum of a 3.0 grade point average in all courses combined. No course taken toward degree completion may be taken on a CR/NC basis.

## Quantitative Economics (M.S.) – 30 units

### Core Requirements (18 units)

Code	Title	Units
ECON 701	Seminar: Microeconomic Theory	3
ECON 702	Seminar: Macroeconomic Theory	3
ECON 715	Mathematical Economics	3
ECON 731	Econometric Methods and Applications	3
ECON 825	Applied Time Series Forecasting for Economics and Business	3
ECON 830	Advanced Econometric Methods and Applications	3

### Electives (9-12 units)

Take 9 – 12 units of electives to reach a total of 30 units, depending on the choice of culminating experience. Students are expected to take graduate-level economics courses or the graduate section of paired courses for electives, but up to two upper-division undergraduate courses may also be used as electives. A maximum of two courses may be taken outside the Economics department with prior approval by an advisor. Consult an advisor before enrolling in any elective course.

### Culminating Experience (0-3 units)

Students may choose one of two options: the Written Comprehensive Examination or the Research Project.

### Written Comprehensive Examination

A three-hour comprehensive written examination is required of all candidates not opting for the Research Project. Examinations are conducted during the spring semester. No student is permitted to take the examination until they have completed, by the end of the spring semester during which the exam is taken, 24 units of the Advancement to Candidacy (ATC) with a B (3.0) average. ECON 701, ECON 702, ECON 715, and ECON 731 must be included in these 24 units. Students who choose the Written Comprehensive Exam for their culminating experience must also enroll in ECON 896EXM Culminating Experience Examination (0 units).

Code	Title	Units
ECON 896EXM	Culminating Experience Examination	0

### Research Project

As one of the culminating experience options students may choose to pursue a research project in economics under faculty supervision leading to a written project report and an oral presentation. This option is limited to students who have completed 21 units of the Advancement to Candidacy (ATC) with a GPA of 3.5 or better. ECON 701, ECON 702, ECON 715, and ECON 731 must be included in these 21 units. Students choosing the Research Project option can take no more than 3 units of ECON 899 Independent Study towards the degree. Additional guidelines and requirements are available through the economics graduate program coordinator.

<b>Code</b>	<b>Title</b>	<b>Units</b>
ECON 895	Research Project	3