

MS IN QUANTITATIVE ECONOMICS

Total units required for MS: 30

Program Description

Students in the Master's of Science in Quantitative Economics develop analytical skills for modeling, interpreting, and understanding economic behavior with applications in business, public policy, and data analysis. Statistical analysis of economic phenomena and problems is emphasized.

In line with the applied emphasis of the graduate program, the Department maintains a relationship with both the California state government and many private organizations in the Sacramento area. Recent graduates have found careers in private businesses and corporations, federal, state, and local government, non-profits, and academia.

Admission Requirements

Admission as a classified graduate student in Economics requires:

- a minimum 3.0 GPA in the last 60 units attempted;
- a minimum 3.0 GPA in undergraduate Economics work;
- ECON 100A (Intermediate Macroeconomic Theory) or equivalent; and ECON 100B (Intermediate Microeconomic Theory) or equivalent;
- ECON 141 (Introduction to Econometrics) or equivalent;
- MATH 26A (Calculus I) or equivalent; recommend MATH 26B (Calculus II) or equivalent;
- two letters of recommendation from undergraduate instructors;
- a minimum score of 550 on the TOEFL (this requirement applies only to students earning degrees abroad whose primary language is not English); and
- a baccalaureate degree.

Students not meeting the above requirements may be granted conditionally classified graduate status with permission of the Economics Department Graduate Committee, providing the applicant submits in writing the reasons for pursuing graduate training and why the Committee should waive one or more of the above requirements. GRE scores are not required, but will be considered by the admissions committee if they are included with an application. Students accepted on a conditional basis may be required to complete a set of courses prior to beginning the Economics Graduate core, or to fulfill other conditions prior to approval for fully classified status. Failure to conform to this stipulation will result in the revocation of the conditionally classified status.

Admission Procedures

Applicants must complete a university application and also meet departmental requirements by the posted application deadline date for term applying. *For more admission information and application deadlines, please visit* <http://www.csus.edu/gradstudies/>. Applications submitted after the deadline will only be reviewed in the event that room for new students exists. All prospective graduate students, including Sacramento State graduates, must file the following documents with the Office of Graduate Studies, Riverfront Center 215, (916) 278-6470:

- an online application for admission;
- official transcripts from all colleges and universities attended, *other than Sacramento State*;
- two letters of recommendation. Contact information for two faculty references is sufficient if the applicant is a current Sacramento State economics student;
- TOEFL scores, if applicable.

Any applicant not meeting admission requirements as specified above should submit to the Department in writing reasons for requesting a waiver of the admission requirements.

Approximately six weeks after the application deadline, a decision regarding admission will be sent to the applicant.

Minimum Units and Grade Requirement for the Degree

Units required for the MS: 30

Minimum Cumulative GPA: 3.0

Advancement to Candidacy

Each student must file an application for Advancement to Candidacy as soon as the graduate student has:

- successfully completed the following, and with a minimum grade of "B":

Code	Title	Units
ECON 241	Applied Econometric Analysis	3
ECON 200A	Advanced Macroeconomic Theory	3
ECON 200B	Advanced Microeconomic Theory	3

- be enrolled, or have successfully completed ECON 200C;
- been recommended for advancement by the Graduate Committee; and
- take a Graduate Writing Intensive (GWI) course in their discipline within the first two semesters of coursework at California State University, Sacramento.

Advancement to Candidacy forms are available on the Office of Graduate Studies website. The student fills out the form after planning a degree program in consultation with the Economics Department Graduate Coordinator. The completed form is then returned to the Office of Graduate Studies for approval.

Program Requirements

All students are required to complete the core course sequence outlined below with a minimum grade of "B" in each course. After completing the core courses, the student selects a thesis plan to finish the degree requirements. The core courses, elective options, and the thesis, are outlined below.

Code	Title	Units
<i>Core Courses (15 Units)</i>		
ECON 200A	Advanced Macroeconomic Theory	3
ECON 200B	Advanced Microeconomic Theory	3
ECON 200C	Advanced Applied Economics	3
ECON 200M	Mathematics for Economists	3
ECON 241	Applied Econometric Analysis	3
<i>Elective Courses (12 Units)</i>		
Select 12 units of electives from the following list of courses ¹		12

ECON 213	U.S. Economic Development in Historical Perspective	
ECON 230	Public Finance	
ECON 238	Monetary and Fiscal Policy	
ECON 251	Urban Problems, Economics and Public Policy	
ECON 260	Industrial Organization and Performance	
ECON 263	Food Economics	
ECON 265	Cost Benefit Analysis	
ECON 290	International Trade	
STAT 115A	Introduction to Probability Theory	
STAT 128	Statistical Computing	
STAT 129	Analyzing and Processing Big Data	
MATH 100	Applied Linear Algebra	
MATH 108	Introduction to Formal Mathematics	
MATH 130A	Functions of a Real Variable	
CSC 177	Data Analytics and Mining	
Culminating Requirement (3 Units)		
ECON 500	Master's Thesis	3
Total Units		30

¹ Of these 12 units, at least **six** units (i.e., 2 courses) must come from 200-level courses. Note the following:

- 100-level economics electives with prerequisites can substitute as graduate electives, but there can be no 100-level/200-level duplication of similar courses (e.g., you cannot receive credit towards the Master's degree for both ECON 130 and ECON 230, ECON 138 and ECON 238, etc.).
- STAT 115A, MATH 100, MATH 108, MATH 130A, and CSC 177 have additional prerequisites.
- Students interested in careers in data analysis are encouraged to select STAT 128 Statistical Computing and/or STAT 129 Analyzing and Processing Big Data as 100-level electives. STAT 128 is a prerequisite for STAT 129.
- Students interested in pursuing a Ph.D. in Economics are encouraged to select MATH 100, MATH 108, MATH 130A, and/or STAT 115A, or other math and statistics courses as 100-level electives.
- A maximum of 6 units of 100-level electives can be applied to the MA degree.
- Selected courses (e.g. Math, Statistics, or Computer Science) from other departments may be allowed as substitutes with the approval of the Graduate Coordinator.
- ECON 295 and ECON 298 do not count as electives toward satisfying the 12 unit requirement without the approval of the Graduate Coordinator.