Mathematical Economics - B.S.  College of Arts and Sciences

The mathematical economics major offers students a degree program that combines mathematics, statistics, and economics. In today's increasingly complicated international business world, a strong preparation in the fundamentals of both economics and mathematics is crucial to success. This degree program is designed to prepare a student to go directly into the business world with skills that are in high demand, or to go on to graduate study in economics or finance. A degree in mathematical economics would, for example, prepare a student for the beginning of a career in operations research or actuarial science.

120 hours (minimum)

Any student earning a Bachelor of Science (BS) degree must complete a minimum of 60 hours in natural, physical, mathematical, and computer science. Please note: courses with an ECO prefix are generally not accepted towards fulfilling this 60-hour requirement. Therefore, be sure to keep this requirement in mind as you choose your course work for the requirements in the major. A complete description of College requirements for a Bachelor of Science degree, including a specific listing of courses applicable to the 60-hour requirement, can be found on page 111 of the 2010-2011 UK Bulletin.

University Studies Program Requirements
I. Math (completed by Premajor Requirement) ........................................ 0-8
II. Foreign Language (placement exam recommended) ........................... 0-8
III. Inference–Logic (completed by Premajor Requirement) ...................... 0-8
IV. Written Communication ..................................................................... 0-4
V. Oral Communication* (can be partially completed by Major Requirement) .................................................. 0-4
VI. Natural Sciences ................................................................................ 6
VII. Social Sciences (partially completed by Major Requirement) .............. 3
VIII. Humanities ...................................................................................... 6
IX. Cross-Cultural (choose a Humanities course) .................................... 3
X. Electives (choose two Natural Science courses) .................................. 6
USP hours: ......................................................................................... 25-37

Graduation Writing Requirement
After attaining sophomore status, students must complete a Graduation Writing Requirement course. See "University Writing Requirement" on pages 78-79 of the 2010-2011 UK Bulletin.

Graduation Writing Requirement Hours: ................................................. 3

College Requirements
I. Foreign Language (placement exam recommended) ........................... 0-8
II. Disciplinary Requirements
   a. Natural Science (completed by USP Elective Requirement) .............. 0-8
   b. Social Science (completed by Major Requirements) ........................ 0-8
   c. Humanities (completed by USP Cross-Cultural Requirement) .......... 0-8
III. Laboratory or Field Work ................................................................. 1
IV. Electives ......................................................................................... 6
College Requirement hours: ................................................................. 7-15

Premajor Requirements
^MA 113 Calculus I ........................................................................... 4
MA 114 Calculus II ............................................................... 4
Premajor hours: ........................................................................... 8

Major Requirements
Mathematics Core Requirements
MA 213 Calculus III ................................................................. 4
MA 214 Calculus IV ................................................................. 3
MA 320 Introductory Probability ......................................................... 3
MA 322 Matrix Algebra and its Applications ........................................ 3
Mathematics Core hours: ................................................................ 13

Economics Core Requirements
^ECO 201 Principles of Economics I ................................................. 3
ECO 202 Principles of Economics II ..................................................... 3
ECO 391 Economic and Business Statistics ........................................ 3
ECO 401 Intermediate Microeconomic Theory .................................... 3
ECO 402 Intermediate Macroeconomic Theory ................................... 3
Economics Core hours: .................................................................... 15

Other Course Work Required for the Major
For the Mathematics Component:
Choose one of the following sequences: MA 416G and MA 417G, MA 471G and MA 472G, or STA 524 and STA 525 ............................................. 6
For the Economics Component
*Choose 9 hours of 300+ level economics courses ................................. 9
For the Statistics Component
Choose STA 291 or a higher level statistics course ............................... 3
Other Major hours: ........................................................................... 18

Electives
Electives should be selected by the student to lead to the minimum total of 120 hours required for graduation ................................................. 12

Total Minimum Hours Required for Degree .................................... 120

^Course used towards completion of a USP Requirement.
*COM 199 + ECO 499 satisfy the Oral Communication Requirement.