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 Arts (BA) degree must complete a minimum of 39 hours at the 300+ level. These hours are generally completed by the major requirements. However, keep this hour 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 Arts degree can be found on page 110 of the 2010-2011 UK Bulletin.

University Studies Program Requirements

I. Math (completed by Premajor Requirement) 
II. Foreign Language (placement exam recommended) .......... 0-8
III. Inference–Logic (completed by Premajor Requirement) 
IV. Written Communication ................................................. 0-4
V. Oral Communication* (can be partially completed by Major Requirement) ............................................. 1
VI. Natural Sciences .............................................................. 6
VII. Social Sciences (partially completed by Major Requirement) .... 3
VIII. Humanities ................................................................. 6
IX. Cross-Cultural (choose a 300+ level 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) 
   b. Social Science (completed by Major Requirements) 
   c. Humanities (partially completed by USP Cross-Cultural Requirement) ............................................. 3
III. Laboratory or Field Work .................................................. 1
IV. Electives .......................................................................... 6

College Requirement hours: 10-18

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 ......................... 9

Total Minimum Hours Required for Degree: 120

^Course used towards completion of a USP Requirement.

*COM 199 + ECO 499 satisfy the Oral Communication Requirement.