Mathematical Economics - B.A.

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 94 of the 2004-2005 UK Bulletin.

University Studies Program Requirements

I. Math (completed by Premajor Requirement) ........................................ 3
II. Foreign Language (placement exam recommended) ........................... 0-8
III. Inference–Logic (completed by Premajor Requirement) ................ 3
IV. Written Communication .............................................................. 3-6
V. Oral Communicationa (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) ............................. 3

USP hours: .................................................................................. 28-39

College Requirements

I. Math (completed by Premajor Requirement) ........................................ 3
II. Disciplinary Requirements
   a. Natural Science (completed by USP Elective Requirement) .......... 3
   b. Social Science (completed by Major Requirements) ............... 3
   c. Humanities (completed by USP Cross-Cultural Requirement) ....... 3
III. Laboratory or Field Work ............................................................ 1
IV. Electives ................................................................................. 6

College Requirement hours: .............................................................. 10-18

Premajor Requirements

a 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 USP Oral Communication Requirement.