



Mathematical Economics - B.A.

College of Arts and Sciences

NOTE: Courses listed in parentheses after the course title are Kentucky Community and Technical College courses that have been approved to fulfill the equivalent UK requirement.

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 pages 101-103 of the 2007-2008 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 page 72 of the 2007-2008 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 (MA 113 or MT 175) 4
MA 114 Calculus II (MA 114 or MT 185) 4

Premajor hours: 8

Major Requirements

Mathematics Core Requirements

- MA 213 Calculus III (MA 213) 4
MA 214 Calculus IV (MA 214) 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 (ECO 201) 3
ECO 202 Principles of Economics II (ECO 202) 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 (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.