Mathematics – Economics Joint Major

Revised: 10/2021

This major was designed for students who may be interested in the quantitative aspects of economic analysis and mathematics. Graduates will be well prepared to pursue a career in business or industry (such as forecasting, analysis, or research). However, many students completing this degree will choose to enter graduate school in economics, business, applied mathematics, or a related field. The curriculum for the joint major consists of nine economics courses, including the core theory courses and some quantitative field courses, seven mathematics courses, and two courses in statistics.

Required courses for the Mathematics – Economics joint major
The mathematics – economics joint major requires the completion of 59 credits distributed as follows.

Mathematics courses
MATH 0220 Analytic Geometry and Calculus 1
MATH 0230 Analytic Geometry and Calculus 2
MATH 0240 Analytic Geometry and Calculus 3
MATH 0413 Introduction to Theoretical Mathematics
MATH 0420 Introduction to Theory 1-Variable Calculus
MATH 0500 or ECON 0900 Professional Development
MATH 1270 Ordinary Differential Equations 1
One of the following
MATH 1180 Linear Algebra 1
MATH 1185 Honors Linear Algebra

Statistics courses
STAT 1151 Introduction to Probability
STAT 1152 Introduction to Mathematical Statistics

Economics courses
ECON 0100 Introduction to Microeconomic Theory
ECON 0110 Introduction to Macroeconomic Theory
ECON 1100 Intermediate Microeconomics
ECON 1110 Intermediate Macroeconomics
ECON 1150 Applied Econometrics 1
ECON 1200 Introduction to Game Theory
One ECON non 0800-series elective course
Two ECON 1000-level courses having either ECON 1100 or ECON 1110 as a prerequisite

Recommended courses
Students are encouraged to take at least one field course in mathematics (MATH 1100, 1110, 1280, 1470, 1530, 1540, 1550, 1700) or statistics (STAT 1221, 1311, 1321, 1631, 1632).

Grade requirements
A grade of C or better is required in each course that is to count toward the major.

Satisfactory/No Credit option
Only MATH 0500 or ECON 0900 may be taken on the S/NC basis. All other courses must be taken on a letter grade basis.

Writing (W) requirement
Students must complete at least one W-course in the major.

Honors major requirements
Honors in the mathematics – economics joint major is granted if the student:
- Completes these courses in lieu of those previously specified:
  - MATH 0235 Honors 1 Variable Calculus
  - MATH 0240 Analytic Geometry and Calculus 3 (UHC)
  - MATH 0450 Introduction to Analysis
  - MATH 1185 Honors Linear Algebra 1
  - MATH 1530 Advanced Calculus 1
  - STAT 1151 Introduction to Probability
  - STAT 1152 Introduction to Mathematical Statistics;
- Completes all required economics courses taking ECON 1180 Mathematical Economics and a pro-seminar (ECON 1700 – 1730) for the two ECON 1000-level electives; and
- Maintains a minimum GPA of 3.0 in the mathematics courses, a GPA of 3.5 in the economics courses, and an overall GPA of 3.5.

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Checklist for the Mathematics – Economics joint major

Mathematics courses
_______ MATH 0220
_______ MATH 0230
_______ MATH 0240
_______ MATH 0413
_______ MATH 0420
_______ MATH 0500 or ECON 0900
_______ MATH 1270

One of the following
_______ MATH 1180
_______ MATH 1185

Statistics courses
_______ STAT 1151
_______ STAT 1152

Economics courses
_______ ECON 0100
_______ ECON 0110
_______ ECON 1100
_______ ECON 1110
_______ ECON 1150
_______ ECON 1200
_______ ECON ______ (non 0800-series elective)
_______ ECON 1____
_______ ECON 1____

Note: The two ECON 1000-level electives require either ECON 1100 or ECON 1110 as a prerequisite.