



Mathematics – Economics Joint Major

www.Mathematics.Pitt.edu and www.Econ.Pitt.edu

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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, or as few as 52 with UHC (University Honors Course) options, distributed as follows.

Mathematics courses

MATH 0220 Analytic Geometry and Calculus 1

MATH 0230 Analytic Geometry and Calculus 2

Note: Qualified students may substitute MATH 0235 Honors 1-Variable Calculus (UHC) for MATH 0220 and MATH 0230

MATH 0240 Analytic Geometry and Calculus 3

MATH 0413 Introduction to Theoretical Mathematics

MATH 0420 Introduction to Theory 1-Variable Calculus

Note: Qualified students may substitute MATH 0450 Introduction to Analysis (UHC) for MATH 0413 and MATH 0420

MATH 0500 or ECON 0900 Professional Development

MATH 1270 Ordinary Differential Equations 1 or MATH 1275

Honors 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
- 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.

Advising

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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 or 1275

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.