



# Mathematics – Economics Joint Major

[www.Mathematics.Pitt.edu](http://www.Mathematics.Pitt.edu) and [www.Econ.Pitt.edu](http://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 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

### 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.

## 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

### 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.