University of
Pittsburgh ${ }_{\text {Diericist sconool }}$ Mathematics - Economics Joint Major
www.Mathematics.Pitt.edu and www.Econ.Pitt.edu
Revised: 06/2023

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

Jason DeBlois
THACK 407
UGDMath@Pitt.edu
Katherine Wolfe (Economics)
WWPH 4702
Jane Caldwell Wallace (Economics)
WWPH 4704
412-648-1740
EconADV@Pitt.edu

| Mathematics courses |
| :---: |
| _ MATH 0220 |
| MATH 0230 |
| _ MATH 0240 |
| MATH 0240 |
| 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


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

