Economics and Mathematical Sciences (BS)

Major Academic Advisor: Kathleen Conway (Tepper 131)

This major is a collaborative effort between the Department of Mathematical Sciences and the Undergraduate Economics Program. Combining advanced mathematics with advanced economic theory is the hallmark of this curriculum. The curriculum provides students with courses that complement and develop depth of understanding of economic theory, applied economics, and applied mathematics.

This degree offers an integrated curriculum, guiding students through a program of coursework that exploits and builds upon the synergies between mathematics and economics. It equips students with the mathematical tools that are essential for success in Ph.D. programs in economics, mathematics, and key functional areas of business including finance, accounting, marketing, and information systems. Students pursuing this degree will be well prepared for the beginning of their research careers in academia, government, and industry. There are a limited number of student slots in this program; interested students may apply as early as their sophomore year.

This is a suggested schedule for the first 2 years for a Primary Major. The remainder of the Major and GenEd can be completed in the junior and senior year.

1st semester
- 36-200 or 36-201, Statistics*
- Complete 1:
  - 76-101, Interpretation & Argument
  - 79-104, Global Histories
  - Freshman Seminar
- 99-101, C@CM
- 21-120, Diff. & Integral Calculus***
- 73-102, Principles of Microecon
- xx-xxx, Elective**

2nd semester
- Complete 2:
  - 76-101, Interpretation & Argument
  - 79-104, Global Histories
  - Freshman Seminar
  - 21-256, Multivariate Analysis***
- 15-110, Principles of Computing
- 73-103, Principles of Macroecon

3rd semester
- 36-225, Intro. to Probability Theory
- 21-122, Integ., Diff. Eq. & Approx.
- 73-230, Intern. Microeconomics
- 21-127, Concepts of Mathematics
- xx-xxx, Elective**

4th semester
- 36-226, Intro. to Prob. & Stats II
- 73-240, Intern. Macroeconomics
- 73-3xx, Adv. Economics Elective
- 21-241, Matrices & Linear Trans.
- 73-274, Econometrics 1

*Acceptable equivalents for 36-201/200 are: 36-207, 36-247 or 36-220
**Electives: These spaces can be used for a pre-requisite course, another GenEd course, major course, or for a course you are interested in.
***If required to start with 21-111, complete 21-112, then 21-256 or 21-259.