Option in Applied Mathematics (code MATHBS02) (120 units)

This option offers two suboptions: the first concentrates on the applications in science and engineering, the second concentrates on the applications to economics and management.

Requirements

Suboption II: Application in Economics and Management

Lower Division:

• Take all the following courses:
  • MATH 122 Calculus I (4)
  • MATH 123 Calculus II (4)
  • MATH 224 Calculus III (4)
  • MATH 247 Introduction to Linear Algebra (3)
  • CECS 174 Intro to Programming & Problem Solving (3)

• Take one of the following courses:
  • ENGL 101 Composition (3)
  • ENGL 317 Technical Communication (3)

• Take one of the following groups:
  • 1. ECON 100 Principles of Macroeconomics (3)
  • ECON 101 Principles of Microeconomics (3), or
  • 2. ECON 300 Fundamentals of Economics (3)

Upper Division:

• Take all the following courses:
  • MATH 323 Introduction to Numerical Analysis (4)
  • MATH 361A Introduction to Mathematical Analysis I (3)
  • MATH 361B Introduction to Mathematical Analysis II (3)
  • MATH 364A Ordinary Differential Equations I (3)
  • MATH/STAT 380 Probability and Statistics (3)
  • MATH 485 Mathematical Optimization (3)
  • STAT 381 Mathematical Statistics (3)
  • STAT 482 Random Processes (3)

• Take a minimum of 6 units from the following courses:
  • MATH 364B, 423, 463, 470, 473, 474, 479; STAT 410

• Take a minimum 15 units from one of the following groups:
  • A. Take both of the following courses:
    • ECON 310 Microeconomic Theory (3)
    • ECON 311 Macroeconomic Theory (3)
  • Take 9 units selected from the following
    • ECON 333, 410, 411, 420, 485, 486
  • B. Take both of the following courses:
    • ECON 333 Managerial Economics (3)
    • MGMT 410 Materials Management (3)
  • Take 9 units selected from the following:
    • MGMT 411, 412, 413, 414, 426