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 I: Application in Science and Engineering

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)
  - PHYS 151 Mechanics and Heat (4)
  - PHYS 152 Electricity and Magnetism (4)
- Take one of the following courses:
  - ENGL 101 Composition (3)
  - ENGL 317 Technical Communication (3)
- Take one of the following courses:
  - PHYS 254 Applied Modern Physics (3)
  - EE 211 Electric and Electronic Circuits (3)
  - CE 205 Analytical Mechanics I (Statics) (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 364B Ordinary Differential Equations II (3)
  - MATH/STAT 380 Probability and Statistics (3)
  - MATH 470 Intro to Partial Differential Equations (3)
- A minimum of 9 units from the following:
  - MATH 423, 461, 463, 472, 473, 474, 479, 485; STAT 381, 482.
- A minimum of 9 units from one of the following groups:
  - A. PHYS 310, 340A, 340B, 350, 410, 422, 450;
  - B. EE 310, 370, 382, 411, 460, 482;
  - C. CE 335, 359, 437, 438, 458; MAE 371, 373