Option in Mathematics Education (code MATHBS03) (120 units)

Single Subject Preliminary Credential Mathematics (code 165)

This option is for students preparing to teach mathematics at the secondary school level. Completion of this Option meets subject matter competence requirements for the Single Subject Preliminary Credential Mathematics.

In addition to meeting the subject matter competence requirement for the Preliminary Credential, prospective Math teachers are also required to complete 44 units of professional preparation in the Single Subject Credential Program, including student teaching. Students may begin the professional preparation courses as early as the junior year. With careful planning, it is possible to complete all of the credential program courses, except for student teaching, as an undergraduate. Courses may also be completed as a post-baccalaureate student. Refer to the Single Subject Teacher Education section of this Catalog or the Single Subject Credential Program website (www.ced.csulb.edu/single-subject) for a description of the professional preparation requirements, courses, and application procedures. Consult the department's Mathematics Education Advisor early to plan the program.

Requirements

Lower Division:

• Take all the following courses:
  • MATH 122 Calculus I (4)
  • MATH 123 Calculus II (4)
  • MATH 224 Calculus III (4)
  • MATH 233 Fundamental Concepts for Adv Math (3)
  • MATH 247 Introduction to Linear Algebra (3)
• Take one of the following courses:
  • ENGL 101 Composition (3)
  • ENGL 300 Advanced Composition (3)
  • ENGL 317 Technical Communication (3)
• Take one of the following sequences:
  • PHYS 151 Mechanics and Heat (4)
  • PHYS 152 Electricity and Magnetism (4)
  • or
    • PHIL 170 Critical Reasoning (3)
    • PHIL 270 Symbolic Logic I (3)
  • or
    • Eight units of a foreign language.

Upper Division:

• Take all the following courses:
  • MATH 310 History of Early Mathematics (3)
  • MATH 341 Number Theory (3)
  • MATH 355 College Geometry (3)
  • MATH/STAT 380 Probability and Statistics (3)
  • MATH 410 History of Modern Mathematics (3)
• MATH 444 Introduction to Abstract Algebra (3)
• STAT 381 Mathematical Statistics (3)
• MTED 301 Computer Applications in Mathematics for Teachers (3)
• MTED 411 Topics and Issues in Secondary School Mathematics (3)
• EDSS 300M. Introduction to Teaching - Mathematics (3)

• Take one of the following courses:
  • MATH 361A Introduction to Mathematical Analysis I (3)
  • MATH 364A Ordinary Differential Equations I (3)

• Take 3 additional upper division mathematics units excluding: MATH 303I, 370A, 370B, 409.