

CALIFORNIA STATE UNIVERSITY, LONG BEACH

Department of Mathematics and Statistics

MINOR IN APPLIED MATHEMATICS (Code MATHUM02)

This minor allows students in other majors to gain an understanding and thorough introduction to university level applied mathematics. The requirements are as follows:

1. **Lower Division:**

MATH 122	Calculus I (4 units)	
MATH 123	Calculus II (4 units) *	(See note 5, below)
MATH 224	Calculus III (4 units) *	(See note 5, below)
MATH 247	Introduction to Linear Algebra (3 units)	

2. **Upper Division:**

MATH 323	Introduction to Numerical Analysis (4 units)		
{	MATH 364A Ordinary Differential Equations I	}	(3 units)
{	or MATH 370A Applied Mathematics I		
MATH 380	Probability and Statistics (3 units)		

and *one* of the following courses:

MATH 364B	Ordinary Differential Equations II (S)	}	(3 units)
STAT 381	Mathematical Statistics		
STAT 482	Random Processes (F)		
MATH 423	Intermediate Numerical Analysis (S)		
MATH 470	Intro. to Partial Differential Equations (S)		

3. Attain at least a 2.0 GPA over the courses taken for the minor.
4. Have minor code MATHUM02. (If you wish to change your code, see an advisor. It may be possible for Dr. Merryfield to do this electronically.)
5. Complete all requirements for the minor by the time the bachelors degree is awarded.

Minor in Applied Mathematics Advisors: Lax, Merryfield.

Notes:

1. There is no "program planner" or similar document to be filed with this minor, but if substitutions must be made, ask an Applied Mathematics Minor advisor to appropriately inform Enrollment Services.
2. A minimum of 6 units of coursework towards this minor must be taken at CSULB. All courses counted toward this minor must be in Mathematics departments.
3. Majors in the Department of Mathematics and Statistics are not eligible for this minor.
4. The same courses may be used to fulfill requirements for both this minor and the student's major.
- *5. MATH 123 and 224 may be replaced by MATH 222 and one *additional* 3 unit upper division course chosen from 364B, 423, 470, STAT 381, 482.
6. Course substitutions for Mathematics courses required for a student's major may not be valid for the purposes of the minor. Ask an Applied Mathematics advisor about such courses.
7. A student who will be unable to complete requirements for the minor should ask a Mathematics Advisor for help in appropriately informing Enrollment Services.