

# BACHELOR OF SCIENCE IN MATHEMATICS

## *Option in Mathematics Education Major Requirements Worksheet*

### 2012-2013 Catalog

Name: \_\_\_\_\_

Student ID: \_\_\_\_\_

*Note: This checklist is not intended to replace advising from the major department. Students should consult with the major advisor to determine the appropriate sequence of courses. This checklist is to inform students of major requirements and course prerequisites only. CSULB Enrollment Services prepares the Academic Requirements Report, which is the official graduation verification.*

Grade	Course #	Course Title	Semester	Prerequisites
	MATH 122	Calculus I (4)		Appropriate MDPT placement or MATH 111* and 113* or MATH 117*
	MATH 123	Calculus II (4)		MATH 122*
	MATH 224	Calculus III (4)		MATH 123* or 222*
	MATH 233	Fundamental Concepts for Advanced Mathematics (3)		MATH 123* or 222*
	MATH 247	Introduction to Linear Algebra (3)		MATH 123 or 222

**Take ONE of the following courses:**

	ENGL 101	Composition (3) OR		ENGL 100
	ENGL 300	Advanced Composition (3) OR		GE Foundation requirements and upper-division standing
	ENGL 317	Technical Communication (3)		GE foundation requirements, upper-division standing, and a previous composition course**

**Take ONE of the following sequences (choose 1 of the 3 boxes):**

	PHYS 151	Mechanics and Heat (4)		MATH 122 (Pre/Corequisite)
	PHYS 152	Electricity and Magnetism (4)		PHYS 151; Pre/Corequisite: MATH 123

**OR**

	PHIL 170	Critical Reasoning (3)		GE Foundation requirements Category A.1 (Written English)
	PHIL 270	Symbolic Logic I (3)		None

**OR 8 units of a Foreign Language (must be the same foreign language)**


**Upper Division** (for upper-division advising, please see your major faculty advisor):

**Take ALL of the following courses:**

	MATH 310	History of Early Mathematics (3)		Pre/Corequisite A 200-level mathematics course
	MATH 341	Number Theory (3)		MATH 233
	MATH 355	College Geometry (3)		MATH 247
	MATH/STAT 380	Probability and Statistics (3)		MATH 222 or 224
	STAT 381	Mathematical Statistics (3)		MATH 247, and MATH 380 or STAT 380
	MATH 410	History of Modern Mathematics (3)		MATH 247, 310, and at least 3 of the following: MATH 233, 341, 355, 361A, 380
	MATH 444	Introduction to Abstract Algebra (3)		MATH 233 and 247, and at least one of MATH 341 or 347
	MTED 301	Computer Applications in Mathematics for Teachers (3)		1 year of HS geometry and 1 of MTED 110 or MATH 122

\*Requires a "C" or better

\*\* See catalog for more detail

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	MTED 411	Topics and Issues in Secondary School Mathematics (3)		MATH 310, 341, 355, 380, 410, 444; EDSS 300M or consent of the instructor
	EDSS 300M	Introduction to Teaching Mathematics (3)		Advanced sophomore or junior standing

**Take ONE of the following courses:**

	MATH 361A	Introduction to Mathematical Analysis I (3)		MATH 222 or 224, and MATH 233 or 247
	MATH 364A	Ordinary Differential Equations I (3)		MATH 222 or 224, and pre/Corequisite MATH 247

Take **3** additional upper-division units in Mathematics (*excluding*: MATH 303I, 370A, 370B, 409)

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