## BACHELOR OF SCIENCE IN MATHEMATICS Major Requirements Worksheet 2012-2013 Catalog

Name:\_\_\_\_

Student ID:

equivalent)

MATH 122 (pre/Corequisite)

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
Take ALL of the following courses				
	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
	CECS 174	Introduction to Programming and Problem		CECS 100 and MATH 113 (or

## Take ONE of the following

**PHYS 151** 

Solving (3)

Mechanics and Heat (4)

	ENGL 101	Composition (3) OR		ENGL 100
	ENGL 317	Technical Communication (3)		GE foundation requirements, upper-division standing, and a previous composition course, i.e. ENGL 100, 101, 102, 300, or equivalents

**Upper Division:** A minimum of **30 units** of approved courses selected in consultation with a major advisor, to include the following courses:

## Take ONE of the following

	MATH 341	Number Theory (3) OR		MATH 233
	MATH 347	Linear Algebra (3)		MATH 233 and 247
Take A	Take ALL of the following courses:			
	MATH 361A	Introduction to Mathematical Analysis I (3)		MATH 222 or 224, and MATH
				233 or 247
	MATH 361B	Introduction to Mathematical Analysis II (3)		MATH 361A
	MATH 364A	Ordinary Differential Equations (3)		MATH 222 or 224, and
				Pre/Corequisite MATH 247
	MATH 380	Probability and Statistics (3)		MATH 222 or 224
	MATH 444	Introduction to Abstract Algebra (3)		MATH 233 and 247, and at least
		_		one of MATH 341 or 347

To allow flexibility, only 18 units of the required 30 units are specified. Students should choose the remaining **12 units** after discussing career goals and interests with an advisor (may not include MATH 303I, 370a, 370b, or 409).