BACHELOR OF SCIENCE IN MATHEMATICS (IMPACTED)
Option in Applied Mathematics (*Suboption I: Application in Science and Engineering)*
Major Requirements Worksheet
2015-2016 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. ***Pre-Mathematics*** *majors must complete their GE Foundation* ***courses, and the highlighted areas below all with a "C" or better and a cumulative GPA of 2.5, by 60 units to be considered for the major.***

Semester	Grade	Course #	Course Title	Prerequisites
		MATH 122	Calculus I (4)	Appropriate MDPT placement** or MATH 111 *and* 113
		MATH 123	Calculus II (4)	MATH 122
		MATH 224	Calculus III (4)	MATH 123
		MATH 247	Introduction to Linear Algebra (3)	MATH 123
		ENGL 101 ENGL 317	Composition (3) ***OR*** Technical Communication (3)	ENGL 100 GE Foundation requirements, upper-division standing, and a previous composition course**
		CECS 174	Introduction to Programming and Problem Solving (3)	CECS 100 *and* MATH 113 (or equivalent)
		PHYS 151	Mechanics and Heat (4)	None
		PHYS 152	Electricity and Magnetism (4)	PHYS 151; *Pre/corequisite*: MATH 123

Take ONE of the following courses:

		PHYS 254 EE 211 CE 205	Applied Modern Physics (3) ***OR*** Electric and Electronic Circuits (3) ***OR*** Analytical Mechanics I (Statics) (3)	PHYS 152 or EE 210; *Pre/corequisite*: MATH 224 (EE 210/210L *or* PHYS 152) *and* (MATH 123 *or* equivalent) PHYS 151; *Pre/corequisite*: MATH 123

UPPER DIVISION COURSES (See major faculty advisor)

Take ALL of the following courses:

		MATH 323	Introduction to Numerical Analysis (4)	MATH 224, and a course in computer programming
		MATH 361A	Introduction to Mathematical Analysis I (3)	MATH 224, *and* MATH 233 *or* 247
		MATH 361B	Introduction to Mathematical Analysis II (3)	MATH 361A
		MATH 364A	Ordinary Differential Equations I (3)	MATH 224, and *Pre/corequisite*: MATH 247
		MATH 364B	Ordinary Differential Equations II (3)	MATH 364A or 370A
		MATH 380	Probability and Statistics (3)	MATH 224
		MATH 470	Introduction to Partial Differential Equations (3)	MATH 364A or 370A

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**

GROUP A	GROUP B	GROUP C
PHYS 310, 340A, 340B, 350, 410, 422, 450	EE 310, 370, 382, 411,460, 482	CE 335, 359, 437, 438, 458; MAE 371, 373

****The following upper-division units are excluded: MATH 303, 309, 370A, 370B, 409**

Many prerequisites require a" C" or better, please check the catalog for grade requirements.
**See catalog for more detail