

# BACHELOR OF SCIENCE IN MATHEMATICS (IMPACTED)

## Option in Applied Mathematics (*Suboption II Application in Economics and Management*)

### Major Requirements Worksheet

### 2013-2014 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 (All prerequisite courses must have a "C" or better)
	<b>MATH 122</b>	<b>Calculus I (4)</b>		Appropriate MDPT placement* or MATH 111 and 113 or MATH 117
	<b>MATH 123</b>	<b>Calculus II (4)</b>		MATH 122
	MATH 224	Calculus III (4)		MATH 123
	MATH 247	Introduction to Linear Algebra ( 3)		MATH 123
	CECS 174	Introduction to Programming and Problem Solving (3)		CECS 100 and MATH 113 (or equivalent)

**Take ONE of the following**

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

**Take ONE of the following groups (either ECON 100 AND 101, OR take just ECON 300)**

	ECON 100	Principles of Macroeconomics (3) AND		MATH 103 or higher and one GE Foundation
	ECON 101	Principles of Microeconomics (3)		MATH 103 or higher
	ECON 300	OR Fundamentals of Economics (3)		GE Foundation requirements

**Upper Division:** (see major advisor for all upper-division advising). **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/STAT 380	Probability and Statistics (3)		MATH 224
	MATH 485	Mathematical Optimization(3)		MATH 247 and at least one of MATH 323, 347 or 380
	STAT 381	Mathematical Statistics (3)		MATH 247 and MATH 380 or STAT 380
	STAT 482	Random Processes (3)		MATH 247 and MATH 380 or STAT 380

A minimum of **6 units** from the following: MATH 364B, 423, 463, 470, 473, 474, 479; STAT 410


A minimum of **15 units** from **ONE** of the following groups (for the prerequisites, please see the catalog):

<p><b>Group A</b> Take <b>BOTH</b> of the following courses: ECON 310 Microeconomic Theory (3) AND ECON 311 Macroeconomic Theory (3)</p> <p>Take <b>9 units</b> selected from the following: ECON 333, 410, 411, 420, 485, 486</p>	<p><b>Group B</b> Take <b>BOTH</b> of the following courses: ECON 333 Managerial Economics (3) AND SCM 410 Logistics Management (3)</p> <p>Take <b>9 units</b> selected from the following: SCM 411, 414; MGMT 412, 413, 426</p>
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