

# Department of Mathematics, University of California, San Diego

## PRELIMINARY DEGREE CHECK MAJOR in MATHEMATICS-APPLIED SCIENCE

Name: \_\_\_\_\_ PID#: \_\_\_\_\_ Today's Date: \_\_\_\_\_

Quarter Entered UCSD: \_\_\_\_\_ Graduating Quarter: \_\_\_\_\_ Major GPA: \_\_\_\_\_

### Lower-Division Requirements

**Mathematics (24 units total):**

- 1) Math 20A Calc for Science & Eng
- 2) Math 20B Calc for Science & Eng
- 3) Math 20C Calc & Analytical Geom.
- 4) Math 20D Intro to Diff. Equations
- 5) Math 20E Vector Calculus
- 6) Math 20F Linear Algebra


**One of the following is recommended:**

- MAE 9 C/C++ Programming
- MAE 10 FORTRAN for Engineers
- CSE 8A-B Intro to Computer Science: Java
- CSE 11 Intro to Computer Science: Java  
(Accelerated Pace)


### Upper-Division Requirements

Requires at least 7 upper division mathematics courses (certain courses must be included - see below) and 7 additional upper-division courses selected from one or two of the following departments: Physics, Biology, Chemistry, Biochemistry, Cognitive Science, Computer Science, Economics, Management Science, or Engineering. At Least three of the 7 non-math courses must have a prereq of 3 quarters of calculus.

**Mathematics:**

- \* Math 109 Mathematical Reasoning  
(should be taken Sophomore year)
- \* One of the following:  
Math 102 Applied Linear Algebra OR  
Math 170A Numerical Linear Algebra
- \* Any two-quarter upper-division Math sequence (8 units)
- \* Any three other upper-division Math courses, for a  
total of at least 7 upper-division Math courses (28 units)

**Applied Science:**

- \* Seven additional upper-division courses selected from one or two other departments, of which at least three require 3 quarters of calculus as a prerequisite.

**Mathematics Course Selections:**

- |    |      |                    |  |
|----|------|--------------------|--|
| 1) | Math | 109 (4 units)      |  |
| 2) | Math | 102/170A (4 units) |  |
| 3) | Math | _____ (4 units)    |  |
| 4) | Math | _____ (4 units)    |  |
| 5) | Math | _____ (4 units)    |  |
| 6) | Math | _____ (4 units)    |  |
| 7) | Math | _____ (4 units)    |  |

**Applied Science Course Selections:**

- |    |       |                                    |  |
|----|-------|------------------------------------|--|
| 1) | _____ | _____ (4 units)                    |  |
| 2) | _____ | _____ (4 units)                    |  |
| 3) | _____ | _____ (4 units)                    |  |
| 4) | _____ | _____ (4 units)                    |  |
| 5) | _____ | _____ (4 units, prereq 3 q's calc) |  |
| 6) | _____ | _____ (4 units, prereq 3 q's calc) |  |
| 7) | _____ | _____ (4 units, prereq 3 q's calc) |  |

### Mathematics Department Evaluation:

Comments: \_\_\_\_\_

Advisor: \_\_\_\_\_ Date: \_\_\_\_\_