

Department of Mathematics, University of California, San Diego

PRELIMINARY DEGREE CHECK MAJOR in APPLIED MATHEMATICS (MA27)

Name: _____ PID: _____

Admit quarter: _____ Graduating Quarter: _____ Major GPA: _____

Lower-Division Requirements

Mathematics (24 units total):

- 1. Math 20A Calc for Sci & Eng
- 2. Math 20B Calc for Sci & Eng
- 3. Math 20C/31BH Calc & Analyt. Geom
- 4. Math 20D Intro to Diff. Eqs
- 5. Math 20E/31CH Vector Calculus
- 6. Math 20F/31AH Linear Algebra

Programming - one of the following:

- MAE 9 C/C++ Programming
- CSE 8A-AL-B Intro to Comp Sci: Java
- CSE 11 Intro to Comp Sci: Java
- (Accelerated Pace)

Upper-Division Requirements (13)

At least 13 upper-division courses must be completed in Mathematics as outlined below, except:

a) Up to 3 courses may be outside the department in an approved applied mathematical area. A petition approved by an applied math advisor is required. No such units may also be used for a minor or program of concentration.

b) MAE 107, Econ 120A-B-C, Math 195-199 cannot be counted toward the upper division requirement.

- 1. Math 109 Mathematical Reasoning
(should be taken in sophomore year)
- 2. One of the following:
 - Math 102 Applied Linear Algebra OR
 - Math 170A Intro to Numerical Analysis
- 3. One of the following calculus sequences:
(should be taken in junior year)
 - Math 140A-B Foundations of Real Analysis OR
 - Math 142A-B Introduction to Analysis.
- 4. Applied Math Sequence:
 - Math 180A-B-C-181A Probability & Statistics OR
 - Math 180A-181A and any two from 181B-C-E OR
 - (Math 183 or Math 180A-181A) and any three from 170A-B-C-175-179 Numerical Methods
- 5. One additional sequence from the above list or from the following:
 - Math 110A-120A-130A PDE, Complex Analysis, ODE
 - Math 120A-B Complex Analysis
 - Math 130A-110B DEs, Elements of PDE & Int Eqns
 - Math 152-154, Math & Comp/Discrete Math
 - Math 152-184A, Math & Comp/Combinatorics
 - Math 154-184A, Discrete Math/ Combinatorics
 - Math 155A-B Computer Graphics
 - Math 171A-B Mathematical Programming
 - Math 193A-B Actuarial Math
- 6. Upper-division Electives - to complete 13 upper-div 4 unit courses

- 1. Math 109 (4 units)
- 2. Math _____ (4 units)
- 3. Math _____ (4 units)
- 4. Math _____ (4 units)
- Math _____ (4 units)
- 5. Math _____ (4 units)
- Math _____ (4 units)
- Math _____ (4 units)
- Math _____ (4 units)
- 6. Math _____ (4 units)
- 7. Other Dept (or Math) Course Selections
 - Math/____ (4 units)
 - Math/____ (4 units)
 - Math/____ (4 units)

Mathematics Department Evaluation

Comments:

Advisor: _____

Date: _____