**Applied Math and Statistics**
**Minor in Applied Mathematics**
**Curriculum Chart**
**2012-2013**

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**CALCULUS**
- MATH 19A or 20A Calculus
- MATH 19B or 20B Calculus
- MATH 23A Multivariable Calculus
- MATH 23B Multivariable Calculus

**LINEAR ALGEBRA and DIFFERENTIAL EQUATIONS**
- AMS 10 Mathematical Methods for Engineers I
- AMS 20 Mathematical Methods for Engineers II
- MATH 21* Linear Algebra
- MATH 24* Differential Equations
- PHYS 116B* Mathematical Methods in Physics

**PROBABILITY THEORY**
- AMS 131 Introduction to Probability Theory
- CE 107 Mathematical Methods of Systems Analysis: Stochastic

**INTRODUCTION TO NUMERICAL METHODS**
- AMS 147 Computational Methods & Applications
- PHYS 115 Computational Physics
- PHYS 119 Introduction to Scientific Computing

**DYNAMICAL SYSTEMS**
- AMS 114 Introduction to Dynamical Systems
- AMS 214 Applied Dynamical Systems

**PARTIAL DIFFERENTIAL EQUATIONS**
- AMS 212A Applied Mathematical Methods I
- PHYS 116C Mathematical Methods in Physics
- MATH 107 Partial Differential Equations

**APPLIED MATH ELECTIVE**
Choose one: AMS 107/217, 115/215, 118, 132, 198, 212B, 213, 216, 231, 290B; EE 103, 154; CMPE 115; MATH 103A, 117, 121A; PHYS 105, 139A, 139B, 171
Students may also propose other electives which use applied mathematical methods (e.g. relevant courses from Mathematics, Physics, Chemistry, Earth Sciences, Ocean Sciences, Ecology & Evolutionary Biology, etc.), subject to approval by the department.

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**Information on the Applied Mathematics Minor**

*The applied mathematics minor is available for students who wish* to develop (1) proficiency in modeling real-life problems using mathematics and (2) knowledge of standard, practical analytical and numerical methods for the solution of these models. This minor could be combined with a major in any of the physical, biological, mathematical, or engineering sciences as preparation for a graduate degree in that field or in applied mathematics.

*Students who complete Math 21 and 24 or Phys 116A and 116B in lieu of AMS 10 and 20, are strongly recommended to complete the Matlab self-paced tutorial at:*  
http://matlab-training.soe.ucsc.edu/  
http://iaa.soe.ucsc.edu • advising@soe.ucsc.edu • (831) 459-5840 • 9/14/2012
# APPLIED MATH AND STATISTICS: APPLIED MATHEMATICS MINOR
## DEGREE CURRICULUM

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**STUDENT'S NAME:**

**STAFF ADVISOR:**