UNIVERSITY of CALIFORNIA · IRVINE

Student Learning Outcomes for B.S. in Mathematics

1. Solve mathematical problems using tools and concepts from calculus, linear algebra and differential equations.
2. Demonstrate proficiency in the comprehension and writing of mathematical proofs. They will be able to write well-organized, grammatically correct, and logically sound mathematical arguments.
3. Communicate mathematical ideas through symbolic expressions and graphs and be able draw inferences from such presentations of data.
4. Students will have an appreciation of the beauty and/or power of mathematics.

Mathematics Major

5. Demonstrate mastery of the core concepts in algebra, analysis, and at least one other core area of mathematics.

Specialization in Applied and Computational Mathematics

5. Demonstrate the ability to apply mathematics to real world situations, using deterministic or probabilistic models, and will be able to employ a variety of techniques to solve these systems, including numerical methods.

Specialization in Statistics

5. Analyze and interpret data using statistical tools.

Concentration in Mathematics for Economics

5. Demonstrate the ability to apply mathematical tools to economics problems and appropriately interpret the results.

Specialization in Mathematics for Education

5. Students will have had the opportunity to act as a mathematics instructor to one or more students and will be able to discuss principles of good educational practices as it relates to this teaching experience.