



University of California, Santa Barbara
Program Learning Outcomes

B.S. in Financial Mathematics and Statistics

Students graduating with B.S. degree in Financial Mathematics and Statistics should be able to:

1. Solve mathematical problems using techniques and concepts from calculus, numerical methods and differential equations.
2. Demonstrate a working knowledge of the core concepts in probability and statistics. In particular,
 - i. Use basic mathematical skills needed for probability and statistics;
 - ii. Draw on a strong foundation in statistical reasoning and inferential methods;
 - iii. Use some statistical programming packages.
3. Use mathematical and statistical tools to solve problems in practical situations, especially from the field of finance and derivative markets.
4. Implement numerical approaches using computational software.
5. Combine statistical modeling concepts with computational skills to analyze data.
6. Evaluate and interpret numerical, graphical and symbolic representations of data and effectively communicate mathematical ideas using these means.