



University of California, Santa Barbara
Program Learning Outcomes

Combined BS/MS in Actuarial Science

Students graduating with a combined BS/MS in Actuarial Science should be able to:

1. Demonstrate a working knowledge of the core concepts in probability and statistics. In particular,
 - a. Use basic mathematical skills needed for probability and statistics.
 - b. Employ the basic computer skills used in statistics.
 - c. Explain the fundamentals of probability theory and its role in the construction of modern statistical theory.
 - d. Draw on a strong foundation in statistical reasoning and inferential methods.
 - e. Describe, interpret and conduct an exploratory analysis of data by graphical and other means.
 - f. Use some statistical programming packages.
2. Communicate statistical results effectively. Students will understand that statistical concepts are applied to many fields.
3. Use the most common statistical methods: inferential methods, nonparametric estimation techniques, Bayesian methods, regression, etc.
4. Combine statistical modeling concepts with computational skills to analyze data.
5. Apply probabilistic and statistical concepts in a risk management context.
6. Show awareness of career opportunities in actuarial science.
7. Demonstrate ability to participate in a team project guided by scholars in the area of actuarial science.