DEPARTMENT OF STATISTICAL SCIENCE

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Statistics is the science of developing and implementing methods for collecting, analyzing, interpreting, and presenting empirical data. Statisticians are in demand in virtually every field to understand information, from both large and small data sets. Societal benefits accrue from the proper collection and accurate reporting of data, and being able to clearly report information to citizens and stakeholders.

Bachelor of Science Program
The Department of Statistical Science offers the B.S. degree in Statistics with a General option and an option in Actuarial Science and Finance.

General Option
The General Option includes course work in designing and analyzing experiments, planning and interpreting surveys, and exploring relationships among variables. The field of Statistics is a major part of the emerging area of Data Science, and the General Option includes coursework in computing that is another major aspect of this area. This option includes flexibility to allow the student to emphasize different aspects of Statistics such as statistical theory, computing, or application to specialized fields such as the sciences, engineering, agriculture, natural resources, or business.

Actuarial Science and Finance Option
An actuary applies mathematics and statistics to forecasting problems. Actuaries are employed by financial institutions, government, insurance companies, and international corporations. They address problems as diverse as economic fluctuations, population demographics, resource consumption, medical insurance rates, and retirement needs. Actuaries are in great demand and have many interesting career opportunities often leading to high-level management positions. Admission to the actuarial profession is governed by a series of examinations administered by the actuarial societies. The first two examinations can be taken by undergraduates and are given locally, while the remaining exams are usually taken while working in the industry. Our Actuarial Science and Finance Option, review seminars, and summer internship program with actuarial companies prepare students for these exams.

Statistics Minor
A minor in Statistics is offered for students who have an interest in the field. The minor consists of 22 credits of coursework in Statistics, Mathematics, and related fields.

Graduate Programs
The department offers the Master of Science degree in Statistics. Graduate study in statistics is designed for two types of students. Students whose undergraduate degrees are in subject matter disciplines will prepare for a career involving the application of statistical methods to their particular area of interest. Students with degrees in mathematics, computer science, or similar areas will prepare for a career in data analysis, statistical computing, teaching of introductory-level statistics, or to pursue the Ph.D. degree.