

Mathematics Major: Statistics Concentration

DEPARTMENT OF MATHEMATICAL SCIENCES

MAJORS

- Data Science
- Mathematics

MINORS

- Actuarial Science
- Data Science
- Mathematics
- Statistics

About the Department

The Department of Mathematical Sciences offers programs leading to the Bachelor of Science where majors begin their studies with a core of courses that introduce the beauty and utility of four primary aspects of the mathematical sciences: pure mathematics, applied mathematics, computer science and statistics. Core courses provide students the opportunity to explore these topics before committing to a concentration in their upper-level work.

Statistics Concentration

Statistics is the science that focuses on the organization, display, analysis and interpretation of data. Statistical analyses are used to determine and assess patterns. According to the American Statistical Association, there is an increasing demand for statisticians in industry, pharmaceutical fields, marketing, biomedical fields, government agencies and in many other careers.

The statistics concentration of the mathematics major at Salisbury University offers courses in mathematics and in both theoretical and applied statistics. Students explore the mathematical fundamentals of statistics and its applications to real-life problems in various fields of study. Professional statistical software and programming packages like R, SPSS, MINITAB and others are introduced with multiple application projects.



Preparing for Your Career

Students pursuing the statistics concentration are required to have a one-semester capstone course selected from one of the following:

- **Internship:** Students work with supervisors in a local firm or public institution in conjunction with an advisor from the Math Department. Recently, students worked in the Center of Medicare and Medicaid Services (Washington, DC), NASA Wallops Flight Facility, TidalHealth (the largest local hospital) and Perdue Farms (the largest local farming company).



- **Direct Consulting:** This course provides students with experience in using mathematical and computing tools to solve real-world problems posted by a client organization. Typically, this is a collaboration of students majoring in mathematics, computer science and other disciplines. Students report to the client organization and the department. Recent client organizations include NASA Wallops Flight Facility, University of Maryland Center for Environmental Science (research in global food-system sustainability) and Choptank Transport (an expanding local warehousing and transportation company).

- **Undergraduate Research Project:** Students work on an undergraduate research project under the direction of faculty members to explore some areas of the mathematical and statistical sciences in more depth. Recent projects have involved time series and regression analysis of the economic impact of COVID-19 on the United States, and statistical models of land values for local neighborhoods. This course helps to prepare students who are interested in pursuing graduate study.

CAREER OPPORTUNITIES

Students who graduate with a concentration in statistics may enter careers in:

- Biostatistics
- Market Research
- Business/Finance Analysis
- Quality Control
- Survey Statistics
- Mathematical Statistics

Graduates of our statistics program accepted jobs with organizations such as the Census Bureau, National Security Agency, the IRS, Labor Bureau, as well as many industries. Others have earned Ph.D.s in statistics or biostatistics.

CONTACT INFORMATION

For more information about the Department of Mathematical Sciences, please contact:

410-543-6471

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