Major in Statistics?

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What is Statistics?

- Statistics is the scientific application of mathematical principles to the collection, analysis, and presentation of numerical data. Statisticians contribute to scientific enquiry by applying their mathematical and statistical knowledge to the design of surveys and experiments; the collection, processing, and analysis of data; and the interpretation of the results.
- Statisticians may apply their knowledge of statistical methods to a variety of subject areas, such as biology, economics, engineering, medicine, public health, psychology, marketing, education, and sports. Many economic, social, political, and military decisions cannot be made without statistical techniques, such as the design of experiments to gain federal approval of a newly manufactured drug.
- **Job Characteristics**
- Use data to solve problems in a wide variety of fields
- Apply mathematical and statistical knowledge to social, economic, medical, political, and ecological problems
- Work individually and/or as part of an interdisciplinary team
- Travel to consult with other professionals or attend conferences, seminars, and continuing education activities
- Advance the frontiers of statistics, mathematics, and probability through education and research
- *If you enjoy any of these, a career in statistics may be right for you!*
- Statisticians provide crucial guidance in determining what information is reliable and which predictions can be trusted. They often help search for clues to the solution of a scientific mystery and sometimes keep investigators from being misled by false impressions.

Source: www.amstat.org

Examples of Statistics Careers

- **Medicine**
  The search for improved medical treatments rests on careful experiments that compare promising new treatments with the current state of the art. Statisticians work with medical teams to design experiments and analyze the complex data they produce.
- **Environment**
  Studies of the environment require data on the abundance and location of plants and animals, on the spread of pollution from its sources, and on the possible effects of changes in human activities. The data are often incomplete or uncertain, but statisticians can help uncover their meaning.
- **Industry**
  The future of many industries and their employees depends on improvement in the quality of goods and services and the efficiency with which they are produced and delivered. Improvement should be based on data, rather than guesswork. More companies are installing elaborate systems to collect and act on data to better serve their customers.
- **Government Surveys**
  How many people are unemployed this month? What do we export to China, and what do we import? Are rates of violent crime increasing or decreasing? The government wants data on issues such as these to guide policy, and government statistics agencies provide them by surveys of households and businesses.
- **Market Research**
  Are consumer tastes in television programs changing? What are promising locations for a new retail outlet? Market researchers use both government data and their own surveys to answer questions such as these. Statisticians design the elaborate surveys that gather data for both public and private use.

Source: www.amstat.org

Salary information

Years of Experience	Highest Degree	n	First Quartile	Median	Third Quartile
No Managerial Responsibility					
0–1.9	BS MS PhD	2 19 9	60	63 82	80
2–3.9	BS MS PhD	2 28 18	65 90	72 95	85 100
4–7.9	BS MS PhD	4 47 32	70 95	83 109	94 114
8–11.9	BS MS PhD	1 33 52	80 105	90 120	103 137
12–19.9	BS MS PhD	2 53 42	85 100	103 120	125 140
20–27.9	BS MS PhD	1 27 37	85 114	106 129	128 160
28+	BS MS PhD	3 21 32	100 124	109 140	128 156

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Our program at UNCW

- **BS STT**
- Core courses: MAT 151,152, STT 215, STT 305, STT 315, STT 350, STT 411, STT 412
- Applied Learning: One of STT 490,498
- Electives 1: Two of STT 420, STT 425, STT 430, STT 435, STT 465, STT 475
- 12 hours of collateral courses

Math and Stat Club

- Get involved and talk to other math and statistics majors (good for finding out about classes, forming study groups, etc.)
- Community service
- Conferences!!
- Have fun!

- Contact one of the advisors: Dr. Simmons, Dr. Slaten, or Dr. Lugo (President: Mr. Adrian Coles)