

STATISTICS MINOR PROGRAM

HOW TO BECOME A STATISTICIAN

- Statisticians typically need at least a bachelor's degree and significant coursework in mathematics and statistics.
- Students often need to take mathematics courses such as calculus, differential equations, and linear algebra. Students also commonly take courses in a related field, such as computer science, physics, or biology.
- At the college level, courses in processing and analyzing data are important in addition to math and statistics. Students must learn data-oriented programming languages such as R or Python for presenting analyses.
- To prepare students to work in industry, students may also take courses in another field, such as computer science, life sciences, or physical sciences. For example, coursework in biology, chemistry, or health sciences is useful for testing pharmaceutical or agricultural products. Physics may be useful for statisticians working in manufacturing or quality improvement.

TENURE-TRACK FACULTY

Dr. Mosisa Aga

Time Series Analysis, Statistical Methods

Dr. Tianran Chen

Numerical Algebraic Methods

Dr. Yue Chen

Mathematical Material Sciences, PDE

Dr. Jerome Goddard

*Population Dynamics,
Differential Equations*

Dr. Enoch Lee

Algebra, Cryptology, Coding, Computing

Dr. Jieun Park

Statistical Methods

Dr. Luke Smith

Mathematics Education

Dr. Robert Underwood

Algebra, Theoretical Computing

Dr. Yi Wang

Machine Learning, Numerical Methods

**TOTAL COURSE CREDIT
HOURS REQUIRED: 13**

COURSE NO.	TITLE	CREDIT HOURS	PREREQUISITES
STAT 3000	Statistics Computing Using R Programming	3	MATH 1020/1050/1100/1120/1150 or STAT 2670

Select three courses from the list below:

STAT 4210	Linear Regression for Statistical Learning	3	STAT 2670 and STAT 3000
STAT 4310	Experimental Design	4	STAT 2670 and STAT 3000
STAT 4670	Mathematical Statistics	3	MATH 1620
STAT 4610	Applied Time Series Analysis	3	(STAT 3000) AND (MATH 1620) AND (STAT 2670 OR STAT 4670)

WHAT DOES A STATISTICIAN DO?

- Decide what data are needed to answer specific questions or problems.
- Apply statistical theories and techniques to solve practical problems in business, engineering, and the sciences.
- Design surveys, experiments, or opinion polls to collect data.
- Develop statistical models to analyze data.
- Interpret data and communicate analyses to technical and nontechnical audiences.
- Use statistical software to analyze data and create visualizations to aid decision making in business.
- Statisticians typically work in offices. They also may work on teams with engineers, scientists, and other specialists.

JOB OUTLOOK

Employment of statisticians is projected to grow 31 percent from 2021 to 2031, much faster than the average for all occupations.

MEDIAN ANNUAL WAGES FOR STATISTICIANS IN THE TOP INDUSTRIES IN WHICH THEY WORK

Research and development in the physical, engineering, and life sciences	\$114,770.00
Federal government	\$114,050.00
Insurance carriers and related activities	\$83,820.00
Healthcare and social assistance	\$79,060.00
Colleges, universities, and professional schools; state, local, and private	\$77,750.00

WHY STUDY STATISTICS AT AUM?

STATE-OF-THE-ART

Students are trained using state-of-the-art software such as R programming. Topics include theoretical foundations and modern real-world applications.

SMALL CLASS SIZES

Most classes have no more than 25 students, allowing close supervision and networking with faculty.

PROFESSIONAL DEVELOPMENT

Math Club; Pre-Engineering Club

CAREER PROSPECTS

Emily Cosgrove

B.S. Mathematics and Computer Science double major 2019, software engineer II at EBSCO Information Services.

Eddie Lyndsey

B.S. Mathematics and Computer Science double major 2017, software engineer at Parsons Corporation.

Blake Boswell

B.S. Mathematics 2008, principal data scientist at Cornerstone Research.

Jordan Price

B.S. Mathematics and Computer Science double major 2016, sales engineer at Daxko.

Johnathan Henson

B.S. Mathematics 2008, principal software engineer at Amazon.



AUBURN UNIVERSITY
AT MONTGOMERY