STUDENT LIFE | THE CAREER CENTER

Statistics

FROM STUDY TO SKILLS

All academic programs offered at UM help students develop valuable transferable skills. Statistics is concerned with the critical reasoning skills needed for understanding our quantitative world. As a central part of a liberal arts education, statistics focuses on the process of learning from data: how to ask the right question, how to collect information effectively, how to summarize information, how to make predictions, and how to draw meaningful inferences from data and understand their limitations. Statistics concentrators gain a foundation in data analysis that may be applied to the social, behavioral, natural, and health sciences, as well as in humanistic research.

Related fields include Mathematics, Computer Science, Economics, Political Science, Program in the Environment, Public Policy, Public Health, Psychology, Sociology, and Survey Methodology.

SKILLS AND ABILITIES

Analytical Skills

Applying methods to solve problems

Projecting from data

Reasoning critically

Categorizing data

Developing theories

Designing systems for processing data

Designing data visualizations

Quantitative Skills

Computer programming

Mathematical modeling

Mathematical analysis

Computer simulations

Using statistical software

Interpreting data from tables /charts

Research and Presentation Skills

Identifying areas for research

Translating theory into research plans

Assessing a data collection plan

Designing questionnaires

Evaluating collected data

Determining cost benefits offsets

Presenting alternative explanations

Designing graphs/charts

Writing reports

Problem-Solving Skills

Formulating problems

Applying logic to problems

Assessing needs

Distinguishing relevant/ extraneous information

BUILDING YOUR SKILLS OUTSIDE THE CLASSROOM

Employers seek out individuals who can demonstrate excellent verbal and written communication skills, teamwork and interpersonal skills, initiative, and a strong work ethic. Student organizations and campus employment offer valuable opportunities to add to the skills you are developing in your classes. Most concentrations sponsor specific student groups like an undergraduate organization or an honor society. Other options include study abroad, off-campus employment or volunteering in the community. Finally, a summer internship may be the best way of all to test out a career field and develop marketable skills.

FROM SKILLS TO CAREER

Statistics concentrators develop both general and technical skills applicable to a wide range of careers. For example, the ability to derive meaningful conclusions from a body of data is equally valuable whether working as a public opinion researcher, an economist, or a legislative researcher.

Many concentrators go on to graduate or professional school. The list below is a sample of careers undertaken by Statistics graduates.

Analytical Skills

Economist 📖

Credit risk modeler

State disability insurance analyst

Demographer 📖

Transportation system statistician

Investment manager

Logistics analyst

Sales forecaster

Network performance analyst

Quantitative Skills

Agricultural statistician 📖

Statistical analyst

Biostatistician 📖 🌿

Statistical software designer

Simulation /modeling laboratory manager

Health intervention analyst

Actuary

Opinion pollster

Gaming statistician

Research and Presentation Skills

Social Security claims reviewer

Legislative researcher

College instructor 📖

K-12 teacher

Documents librarian 📖

Operations research analyst

Problem-Solving Skills

Program specialist for a non-profit

Employment specialist

College student services administrator 📖

Precision quality control officer

Production manager

📖 = Further Study Required

🌿 = Green Job

For more career information, see O*Net at
online.onetcenter.org

CONCENTRATION REQUIREMENTS

In addition to three prerequisites (Math 215 and 217, and EECS 182 or 183), the concentration requires a minimum of 30 credit hours (see the LSA Bulletin for more specific information).

Department of Statistics
439 West Hall
734-647-8192
stat.lsa.umich.edu

Newnan Advising Center
1255 Angell Hall
734-764-0332
lsa.umich.edu/advising

NEXT STEPS/RESOURCES

Statistics Undergraduate Program Facebook group: *facebook.com/ugrad.stats.umich*, and American Statistical Association at *amstat.org/careers*

To begin connecting to professionals in fields that interest you, create your own LinkedIn account:
careercenter.umich.edu/article/getting-started-linkedin

To identify internships or job opportunities, visit Career Center Connector:
careercenter.umich.edu/article/c3

On campus jobs (work-study and non work-study jobs) are listed at:
studentemployment.umich.edu/JobX_Home.aspx

Maize Pages list hundreds of organizations for students to get involved in: *maizepages.umich.edu*

Connect to Community lists volunteer opportunities in local organizations:
connect2community.umich.edu

The Career Center
3200 Student Activities Building
734-764-7460
careercenter.umich.edu
facebook.com/careercenter.umich
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linkedin.com/company/the-career-center-at-the-university-of-michigan