## **DREXEL UNIVERSITY COLLEGE OF ARTS AND SCIENCES**

# Mathematical Statistics (BS)



## **PROGRAM OVERVIEW**

Drexel's Bachelor of Science (BS) in Mathematical Statistics is a degree that is attractive to students interested in a variety of industries ranging from actuarial science, medicine, engineering, education, politics, technology, marketing, media, business intelligence, and finance. Statisticians play a key role in identifying problems and finding solutions to those problems.

Mathematical statistics majors will learn modern statistical analysis methods and how to apply these analyses across a number of industries and careers. Applied electives, drawn from classes across the university, provide students the flexibility to discover the role statistics plays in a field of their choosing, Theoretical courses will also provide students with a deep understanding of how statistical analysis works, developing the skills to adapt and develop novel quantitative tools to tackle tomorrow's problems today.

Mathematical Statistics majors explore careers in ACTUARIAL SCIENCE, ENGINEERING, MARKETING, BUSINESS INTELLIGENCE AND ANALYTICS AND DATA SCIENCE.

## **INNOVATIVE CURRICULUM**

The BS in Mathematical Statistics curriculum helps students to develop highly specialized skills in a variety of mathematical areas including data analytics, statistics, probability, and experimental design, among many others. Additionally, students will receive foundational coursework in computer science, computer programming, and research methods.

Students will also be able to select a generous number of electives from a variety of related subject areas. This coursework may include:

MATHEMATICAL FINANCE
BIOINFORMATICS • DEEP LEARNING
ECONOMETRICS • GEOGRAPHIC
INFORMATION SYSTEMS AND
ENVIRONMENTAL MODELING
INFORMATION AND DATA VISUALIZATION
BIG DATA ANALYSIS AND PROBLEM
SOLVING • LINEAR MODELING FOR
DECISION MAKING • FOCUS GROUP
ANALYSIS • CRIME PREDICTION MODELING
ACTUARIAL MATHEMATICS • DATA MINING

According to the U.S. Bureau of Labor Statistics, jobs for mathematicians and statisticians are projected to grow by 31% between 2021 and 2031, which is much faster than the average for all occupations.





## THE MATH RESOURCE CENTER

Staffed by full-time faculty, teaching assistants and math majors, the Math Resource Center is where all Drexel students go to prepare for exams, get help with homework or attend one-on-one tutoring sessions. Students who tutor in the Center have the opportunity to interact with their peers, faculty and graduate students, while earning extra money.

## **DREXEL CO-OP**

Co-operative education options prepare mathematical statistics students to pursue advanced education and careers across wide-ranging areas, such as:

FINANCIAL ANALYSIS • FINANCIAL ADVISING
OPERATIONS RESEARCH • ACTUARIAL SCIENCE
QUANTITATIVE ANALYSIS • ENVIRONMENTAL

SCIENCE • RISK MANAGEMENT AND INSURANCE
REAL ESTATE APPRAISAL • MARKET RESEARCH
ACCOUNTING • SURVEY RESEARCH
SOFTWARE DEVELOPMENT • PUBLIC HEALTH
PHARMACOLOGY • GOVERNMENT AND MANY
OTHERS!

## MINORS AND CERTIFICATES

#### **MINORS**

- Actuarial Science
- Data Science (CCI)
- Information Systems (CCI)
- Business Analytics (LeBow)

### **CERTIFICATES**

- Ethical Theory and Practice
- Philosophy, Science and Technology

## **BEYOND THE CLASSROOM**

## STUDENT CLUBS AND ORGANIZATIONS

## Math Student Organization (MSO)

Open to all students, this organization provides opportunities to explore math beyond the classroom and to interact with students who share similar interests. The MSO organizes a variety of activities, as well as events featuring invited guests, and is dedicated to guiding aspiring actuaries.

## Society for Industrial and Applied Mathematics (SIAM)

The goal of this Drexel student chapter is to generate interest in applied mathematics and to create opportunities for networking and meeting students with similar interests.

