The mathematics and statistics program is designed for students who want to have lots of opportunities after graduation. Completing an undergraduate mathematics or data science degree alone will give students options for immediate employment in areas such as actuarial science, business analytics, and data analysis. Students can combine their mathematics major with a secondary teaching endorsement to teach middle or high school math. Many of our graduates are immediately employed after graduation as secondary math teachers. Students can also combine the degree with a second major or minor in the sciences, computer science, psychology, or virtually any other field. Your mathematics or data science degree can open doors to graduate programs in mathematics, mathematics education, statistics, and other quantitative disciplines.

Individualized curriculum. Mathematics and statistics majors take core courses in Calculus, Algebra, Statistical Analysis, and a course in mathematical programming, which gives them the tools to meet their post-graduation goals. Our program does not have elective courses. Instead, we individualize our curriculum through special topics courses. This allows students to shape the program to meet their future goals and it also allows all students to graduate on time—even with a second major, minor, or concentration. Students in our program get direct faculty assistance in finding employment opportunities or applying for graduate programs.

Our new bachelors program in data science and analytics provides students a solid background in probability theory, statistical modeling, machine learning, and programming in the R language. Students will also obtain a computer science component taking courses in Python and Java, in addition to a course in database management. The data science degree allows students to find employment in the rapidly growing field of data analysis and data mining. With a background in statistical analysis paired with concrete programming experience, this degree gives students a strong competitive edge in a job market where analyzing big data has become a central topic of concern. In addition to the curriculum students take a one credit capstone course as an internship in data analysis and gain concrete experience in industry working for employers such as John Deere and Genesis Health Systems. Double majoring with subjects such as business, marketing, sports management, or biology, students will be equipped with a background that is very attractive to employers grounded in advertising, entertainment, and medicine.

Adding up the advantages. In this complex society, people trained in mathematics will play an increasing and critical role. Mathematicians and statisticians collaborate with biologists and chemists to sequence the human genome or to design and test new

drugs. Mathematics and statistics are essential in computer science, from cryptography and systems security to the techniques used to create virtual reality. Mathematicians and statisticians manage insurance companies and use chaos theory to solve complex problems in finance. And math teachers train the next generation to solve the problems of the future.

A great time to major in mathematics and statistics. You'll get the individual attention you need to handle even the toughest course. We use technology in our math and statistics courses, and the opportunity for hands-on experience is extraordinary. In fact, our math education majors are out working in schools at least three semesters prior to student teaching. Because of a shortage of math teachers and an increasing need for qualified statisticians and casualty actuaries, now's a great time to major in mathematics or data science. St. Ambrose graduates have secured positions at John Deere Health Care and Modern Woodmen of America. Our teacher-training program is widely respected, and our graduates are heavily recruited for fellowships at major graduate schools.

Ambrose Advantages

A focus on learning. Our faculty focus on student learning—not research or supervising graduate students. It's this focus on learning that causes us to continuously make improvements to our classes based on student feedback. Graduate assistants, who may or may not have a solid grasp of the course topics, do much of the teaching in larger schools. At St. Ambrose, highly trained faculty members whose focus is on improving student learning do the teaching.

Research and analysis projects. In our topics and mathematical computing courses students get to work one-on-one with faculty on research and analysis projects. This means students graduate ready for immediate employment or graduate school. Our department combines mathematics with statistics—we have faculty trained in both applied statistics and theoretical mathematics to give students a well rounded set of tools to work with.

Graduate and professional school preparation. The problem solving skills and perseverance gained through studying mathematics and statistics also prepares students for graduate and professional schools. In fact, students majoring in mathematics and statistics outperform other students on required graduate school standardized tests. Recently, we've had students accepted into graduate programs in neuroscience, medicine, mathematics, statistics, and educational measurement and statistics. A couple of recent graduates have earned PhDs in mathematics and statistics.

Strong and lasting relationships. Students can expect to get help outside of class directly from faculty. They can also expect recommendation letters to help them find employment or enroll in graduate school. Our students build strong working relationships with our entire faculty that last far beyond graduation.

Career Opportunities

Most of our students combine mathematics with a secondary teaching endorsement to go on to teach middle school or high school mathematics. A degree in mathematics or data science can lead to rewarding careers in **actuarial science, biostatistics/ biomathematics, business intelligence, business analytics, mathematician, mathematical scientist, mathematical technician, operations research, statistician, data analyst** and **teaching mathematics**.

Career Outlook

> Three of the top four jobs on a Forbes.com list of Best Jobs for 2014 were in mathematics disciplines—mathematician No.1, statistician No. 3, and actuary No. 4.
> The U.S. Bureau of Labor Statistics projects job growth for mathematicians at 21 percent by 2024. The median salary for mathematicians in 2015 was $111,110.
> The position of statistician has a projected growth rate of 34 percent, and a median salary of $80,110 in 2015.
> Job growth for actuaries is projected at 18 percent, with a median salary of $97,070.

Where Some of Our Graduates Work

A few of the organizations that employ our graduates:

> Bettendorf Community School District, teacher
> Davenport Community Schools, teacher
> Des Moines public schools, teacher
> Rock Island Arsenal, program analyst
> University of Iowa, graduate assistants
> Wells Fargo Bank, sales relationship representative

Your Career: Networking, Internships and Jobs in the Quad Cities

The Quad Cities is a welcoming and fun place to live as a college student. More than that, it offers a great community to help you prepare for—or even start—your career. This region continues to grow as a center for business and technology. The Quad Cities is home to Fortune 500 corporations and start-up entrepreneurs. Deere & Company, Alcoa, HON, Kone, Modern Woodmen of America and many other companies that span the globe have headquarters, branches or administration centers in the Quad City region. For students majoring in education, St. Ambrose also has strong connections to over 150 public and private schools in the Quad City area, offering students a variety of settings to begin their field work. These organizations provide exceptional opportunities for networking, internships and jobs.

Get in Touch With Us Today

We invite you to visit St. Ambrose to learn more about the opportunities here. Our quality academic programs provide one of the best private education values in the Midwest. Check it out for yourself: contact our Admissions Office, 563-333-6300 (toll-free 800-383-2627) or admit@sau.edu, or go online to www.sau.edu.

St. Ambrose University offers a Bachelor of Science in Mathematics degree. A secondary education teaching endorsement in mathematics, and an elementary education math teaching endorsement are also available. A minor in Mathematics is also offered. For complete curriculum information and course descriptions, consult the Course Catalog at www.sau.edu/catalog.

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