Mathematics is often broadly defined as the science of pattern. Through the study of patterns in numbers and quantitative relationships, in space and geometric shapes, in motion and the way things change, mathematicians discover underlying principles that can be used to model real-world phenomena and provide solutions to many real-world problems. Modern mathematics encompasses a broad range of areas including calculus, algebra, geometry, topology, discrete mathematics, number theory, probability, and statistics. Mathematics majors are valued primarily for their problem-solving skills and their ability to think analytically and critically. Because of this and the wide range of applications in fields such as business, economics, computer science, and the biological and physical sciences, a major in mathematics can open up many career possibilities. The careers that most directly use mathematics include research mathematician, statistician, actuary, operations research specialist, computer programmer and systems analyst.

*Average Starting Salary:* $35,000 - $45,000

*A Bachelor’s, Master’s degree, or Ph.D. in mathematics would be useful in pursuing these occupations. These positions can be found at the federal, state, local and international level in large and small industry and person consulting firms as well as the military and general government.*