

MATHEMATICS

Mathematics is about understanding the world through studies of quantity, structure, pattern, and change to create logical solutions that make life more meaningful and more beautiful. Mathematics bridges the humanities and the sciences. Its position among the humanities is based on the study of mathematics as one of the liberal arts for more than two thousand years. The natural sciences have invariably turned to mathematics for techniques needed to explore the consequences of scientific theories. In the last few decades, social scientists have increasingly found higher mathematics of value in their training and research. Still an expanding subject, mathematics is a part of more new and challenging frontiers than at any time in its long history – with many new fields, from data science to quantum computing, requiring new techniques and inspiring ideas for exploration.

Graduating math majors have obtained employment in a variety of jobs in business, industry, and governmental agencies and also have obtained teaching positions at the secondary school level (such teaching positions normally require teaching certification). Others have continued their education at the graduate level in mathematics and other fields. Departments in a variety of fields that use mathematics, including some in the social and biological sciences as well as in engineering and the physical sciences, are interested in attracting math majors into their graduate programs. Math PhDs obtain academic positions at the college and university level and nonacademic positions entailing consulting and research. The math major requirements are flexible enough to allow preparation for various goals, interests, and careers.

Students interested in mathematics might also consider the related degree program in applied mathematics, engineering, and physics (<http://guide.wisc.edu/undergraduate/letters-science/mathematics/applied-mathematics-engineering-physics-bs-amep/>).