

## Mathematics

Great jobs are available for mathematicians. Men with degrees in mathematics have the second highest median earnings, while the earnings of females rank in the top ten (Monthly Labor Review, December 1995). Jobs in the mathematical sciences—pure and applied mathematics, operations research, statistics, management science, teaching, and actuarial science—are considered the “best” jobs when one considers such critical factors as income, physical demands, security, stress, and work environment. In fact, almost all of the top fifty jobs require a significant amount of mathematical reasoning and knowledge (Jobs Rated Almanac, 1995). In addition, employment opportunities for mathematicians are expected to increase rapidly through the year 2005.

The Department of Mathematics prepares students for job opportunities as well as for graduate school. In addition to the degree in pure math and secondary education, students can receive training in other mathematical areas such as finance, actuarial science and computer science. Also, students can minor in mathematics.

Excellent classroom instruction combined with a holistic view of the student is the major emphasis of the department. Faculty members work closely with math majors and assist them in writing resumes, obtaining internships, and finding jobs and/or graduate schools. In addition, the department houses two state-of-the-art multimedia computer labs which utilize the most up-to-date software.

There are many activities for students including luncheons with faculty, a math club, an outreach tutorial service, help sessions in algebra and calculus staffed by faculty, and opportunities for involvement in research, math contests, and community-interest projects.

The table below contains the curriculum in mathematics. A student may graduate in mathematics with a focus area in applied mathematics: the freshman and the sophomore courses are the same; the remaining courses must be coordinated with the student’s advisor.

<b>MATHEMATICS</b>			
<b>Total Hours: 129</b>			
<u>FRESHMAN YEAR</u>	<u>Sem. Hrs.</u>	<u>SOPHOMORE YEAR</u>	<u>Sem. Hrs.</u>
Biological Sciences	4	Economics 201 or 202	3
Communications 135	3	English (approved elective)	3
Computer Science 112, 212	6	Mathematics 223, 235, 254	10
English 105, 115	6	Physics 261, 261L, 262, 262L <sup>2</sup>	8
Mathematics 201, 221 <sup>1</sup> , 222	11	Approved Electives (Anthropology, Geography, Political Science, Psychology, or Sociology)	6
Humanities (Dance, Drama, Fine Arts, or Music)	<u>3</u>	History (Approved elective)	<u>3</u>
	33		33
<u>JUNIOR YEAR</u>	<u>Sem. Hrs.</u>	<u>SENIOR YEAR</u>	<u>Sem. Hrs.</u>
Chemistry	4	Mathematics (two-semester sequence) <sup>4</sup>	6
English 325	3	Mathematics 498	3
Foreign Language <sup>3</sup>	6	Sciences 485	1
Mathematics 260, 331, 332, 355	12	Electives <sup>5</sup>	18
Electives <sup>5</sup>	<u>6</u>	Chemistry or Astronomy	4
	31		32

<sup>1</sup>Students not prepared to begin with Mathematics 221 should take Mathematics 121 and/or 122 as electives.

<sup>2</sup>This sequence fulfills the University’s general education requirement for a two-semester sequence in science.

<sup>3</sup>Work must be in one language.

<sup>4</sup>The sequence may be any one of the following: MATH 420, 421; MATH 436, 437; MATH 451, 452; MATH 455, 456; or MATH 461, 462.

<sup>5</sup>For the electives, at least 18 hours must be selected in 300- or 400-level courses, which usually have prerequisites. Electives may not include mathematics courses below 200 (with the exception of MATH 121 and 122), PHSC 105, 106, and 201, or more than 3 semester hours of service courses.

**Mathematics Minor:** The student who chooses to minor in mathematics must take 21 hours consisting of the following courses: MATH 221, 222, 223 (12 hours), and 9 hours of Math at the 300-level or above. Individual plans for minors must be coordinated and approved by the chair of the Mathematics Department.