

MATHEMATICS

The mission of the Department of Mathematics is to provide each student with mathematical skills needed to function and solve problems in a variety of fields as well as to produce graduates majoring in mathematics who can go on to complete higher degrees in mathematics, and/or pursue successful careers in government, industry, or teaching.

The minimum mathematics required of all entering freshman is MATH 107. In certain instances, it may be determined that a student has the necessary background to begin mathematics studies in a course above MATH 107. This may mean that a student need not take the MATH 107. Under these circumstances, the student must consult his/her departmental advisors concerning replacing the credit hours with other courses. The courses used for replacing these credit hours must come from the natural science division, that is, from biology, chemistry, physics, or mathematics. If a mathematics course is used for replacing credit hours, then it must be one that is considered to be at a higher level than MATH 107. Also, a mathematics course(s) used for replacement credits must be at a higher level than the mathematics courses required in the major.

The Department of Mathematics offers a curriculum which leads to the degree of Bachelor of Arts in Mathematics. The objective of this curriculum is to prepare students for graduate studies in Mathematics, Computer Science and related fields, and for a career in government, industry or teaching. In the mathematics curriculum, students are required to take thirty-two hours of mathematics exclusive of the general education mathematics requirements. A minimum grade of "C" is required in each of these mathematics courses. Electives could include courses in computer science, statistics, and applied mathematics. (All electives must be approved by the department.) Mathematics majors are strongly encouraged to take courses in physics as part or all of the natural science requirement.

GENERAL EDUCATION/SPECIFIC DEGREE REQUIREMENTS

A student majoring in mathematics must complete all courses that are considered a part of the General Core Curriculum Requirement.

Humanities/Fine Arts – 19 hours

English 101

– 3

English 102

– 3

Thirteen (13) additional humanities credit hours selected from THREE of the four disciplines (Art, English, Music, Philosophy). There must be one course taken from a select group of philosophy courses and there must be one course taken from a select group of English courses.

Social Sciences – 18**hours** History 103 –

3 History 104 – 3

Twelve (12) additional hours in the Social Sciences (Economics, History, Geography, Political Science, Psychology, Sociology, Social Work), six (6) of which must be in the same discipline.

Foreign Language or Option – 12 hours

Twelve (12) semester hours of French or twelve (12) hours of Spanish or

An approved option of 12 semester hours in a pattern of courses in the same discipline.

Sciences and Mathematics – 20 hours

Mathematics 107 – 4

Mathematics 108 – 4

Twelve (12) additional hours from any of the Sciences or Math courses beyond Math 110. (Exceptions may result from mathematics placement).

Computer Science – 3 hours**Total general education hours – 72****hours Mathematics Courses – 32 hours**

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| MATH 207/208/209 Analytic Geometry & Calculus I, II, & III | 12 hrs |
| MATH 307 Differential Equations | 3 hrs |
| MATH 407 Linear Algebra & Matrix Theory | 3 |
| hrs | |
| MATH 408 Modern Algebra | 3 hrs |
| MATH 417 Modern Geometry | 3 hrs |
| MATH 451 & 452 Seminar I & II | 2 hrs |
| MATH 505 Advanced Calculus I | 3 hrs |
| MATH 506 Adv Calc II or MATH 510 Complex Variables | 3 hrs |

Free Electives – 16 hours**University Basic Requirements – 4 hours**

Physical Education (Two activity type courses) - 2

Orientation (OREN 100 and OREN 101) - 2

Total Minimum Hours Required For Graduation - 124 hours