

# MATHEMATICS MAJOR WITH PRE-ENGINEERING CONCENTRATION

(BA or BS PROGRAM)

2017-2018 Catalog

Information Sheet



EDGEWOOD COLLEGE

*This Information Sheet is for advising purposes only. Do not submit this form as a Major/Minor Declaration Form; a separate form is required to declare your major/minor.*

This concentration is designed to prepare students for careers in engineering fields.

## Major Requirements:

Forty-four (44) credits in mathematics, including:

### Required Courses:

MATH 231	M	Calculus I*
MATH 232	M	Calculus II*
MATH 233	M	Calculus III*
MATH 301	U	Problem Solving and Proof*
MATH 341		Linear Algebra*
MATH 351		Probability*
MATH 485	3KX	Mathematics Seminar*

Students are required to complete at least five additional mathematics courses from the following list, chosen with the consent of the student's academic advisor, to include at least one from each of the three pairings.

MATH 331	Differential Equations*
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### Analysis Pairing:

MATH 431	Real Analysis*
MATH 432	Complex Analysis*

### Algebra Pairing:

MATH 441	Abstract Algebra I*
MATH 442	Abstract Algebra II*

### Geometry Pairing:

MATH 461	College Geometry*
MATH 462	Topology*

### Additional required courses for the Pre-Engineering Concentration:

CHEM 120	S	General Chemistry I*
CHEM 121	S	General Chemistry II*
PHYS 201	SU	College Physics I*
PHYS 202	S	College Physics II*
PHYS 350	I	Scientific Computing*

\*course has prerequisites

**Policies**

A minimum GPA of 2.5 in the above courses is required.

All mathematics prerequisites for mathematics courses must be completed with a grade of 'C' or above to satisfy the prerequisite requirement. Courses in mathematics may not be audited. Courses may only be taken Pass/Fail with the consent of both the instructor and the Mathematics Department Chair.

In order for any mathematics course to count towards any of the mathematics majors, the course must have been completed within five years preceding the date of major declaration. Courses taken prior to that point will be evaluated on an individual basis by the department.

Any mathematics course requirement for any major offered in the department, with the exceptions of MATH 485, MATH 459 and MATH 451, may be satisfied through the proficiency process established by the department. The minimum residency requirement may not be waived.

A student must have a cumulative grade point average of 2.5 or above in courses required for the major.

A student pursuing any major within the Mathematics Department must take at least three mathematics courses at or above the 300 level at Edgewood College.

Students intending to major in mathematics or mathematics teaching should take MATH 301 concurrently or as soon as possible after MATH 232 since it is a prerequisite for most of the mathematics courses at the 300 and 400 levels.