

## **Experimental Module for MAT 2675**

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### **Rationale**

Students who do not require MAT 2580 for their major may seek department permission for MAT 2675 if they successfully complete departmental assessment and the suggested experimental module.

The content proposed to be covered in this module is typically covered in pre-calculus, but not in our MAT 1375 curriculum.

This effort does not aim to remove the MAT 2580 pre-/co-requisite for MAT 2675, but to address the issue arising with students – especially engineering students – who do not require MAT 2580 for their major yet want / need to take MAT 2675.

### **Module design**

The module will comprise of two parts, each with instructional material/videos, worked out problem, practice problems for students and a graded quiz. The module wraps up with a graded exit exam. Each part should take between 60-120 minutes to complete. Students need to complete all parts and get a passing grade to successfully complete departmental assessment and to be allowed to register for MAT 2675.

<b>PART A: Vectors</b>	<b>PART B: Matrices</b>
Notation	Intro to matrices
Operations on vectors	Matrix notation
Dot and cross products	Matrix operations
Possibly other topics TBD	Determinant
	Possibly other topics TBD
Quiz A	Quiz B
<b>End of Module Exit Exam</b>	

### **Assessment**

A combination grade from both quizzes and exit exam (percentages TBD) is assigned to each student after completion of the modules; passing grade TBD.

### **Logistics and walkthrough**

WeBWork is proposed as a host for this experimental module. Blackboard can be explored as another host for the future.

Once approved by the Curriculum Committee, the Math department will inform the Engineering departments of this opportunity and of the eligibility criteria.

Students contact the math department to sign up. A project manager will coordinate adding students on WeBWork and sending students their access information; officially registering them in the module. The project manager will communicate qualifying student to the department to be given permission to register for MAT 2675 for fall 2021, and will contact the students, no later than August 16, 2021. The module will be open for two weeks, from August 1 to August 15, 2021. Registered students have two weeks to finish the module.