

## MATH 125-001 Discrete Mathematics

TR 9:00-10:15 David King Hall 1006

Fall 2018

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**Instructor:** Ellen O'Brien

**Email:** [eobrien@gmu.edu](mailto:eobrien@gmu.edu)

**Office Hours:** T 1:30-2:30, W 1:30-2:30;

**Office:** Exploratory Hall 4205

**Prerequisite:** Score of 13 or better on the Algebra I section of the Math Placement Test or a passing grade (at least C) in Math 105, 108 or 113.

**Text:** Discrete Mathematics with Graph Theory, by Edgar Goodaire and Michael Parmenter, Third Edition, Pearson, 2006

**Course Description:** This course meets the quantitative reasoning requirement, one of the Foundation requirements of the Mason Core and the Math requirement for the Honor's College. The goal of the Foundation requirement is to help ensure that students are equipped with the tools and techniques necessary to succeed in college and throughout their lives and careers. We will cover the following topics:

Logic 1.1-1.3

Sets and Relations 2.1-2.5

Principles of Counting 6.1 - 6.3

Permutations and Combinations 7.1, 7.2, 7.5, 7.6, 7.7

Induction and Recursion 5.1 - 5.3

Graphs 9.1 - 9.3

Paths and Circuits 10.1, 10.2, 10.4

Trees 12.1 - 12.3, 12.5

Planar Graphs 13.1, 13.2

**Final Exam:** Thursday, December 13 at 7:30am-10:15am

**Tests:**

**Test 1** Tuesday, October 2

**Test 2** Tuesday, November 13

**Homework:** Homework problems will be assigned at the end of each class and presented at the beginning of the next class meeting by students. Reading the sections of the text related to the problems is a part of the homework assignment. I will post the assignment regularly on the course Blackboard.

**Quizzes:** There will be weekly quizzes on Blackboard. These quizzes will usually be available on Thursday evening and your answers must be submitted by Monday at 11:59 pm. Your score will show as soon as you submit the quiz, but the answers will appear only after the deadline. NO make-up quizzes will be possible. Some quizzes may be given in class.

**Honor Code:** Sharing information of any kind about exams is an Honor Code violation. The Blackboard Quizzes are \*NOT GROUP PROJECTS\*. You may consult your textbook or class notes but NOT another person for these quizzes. Any violations will be referred to the Office of Academic Integrity.

**Grading:** Your grade for the course will be calculated based on two exams, Blackboard quizzes, and a final exam. Each test is worth 100 points, the quizzes will total 100 points, and the final exam 200 points. The sum of these grades divided by 5 will determine your grade according to the scale:

A: 90-100 B: 80-89.9 C:70-79.9 D:65-69.9 F: below 65

+ or – will be attached to the grade for the upper or lower 2 points in each range

NO make-up TESTS or QUIZZES will be given. If you miss an exam contact me ASAP.

**Disability statement:** If you are a student with a disability and you need academic accommodations, please see me and contact the Office of Disability Services at 703-993-2474. All academic accommodations must be arranged through that office.

**General Remarks:** Please be considerate of other students in the class. Turn your cell phones off before entering the classroom and keep the noise level at a minimum. Be respectful of other students in the class. We all have different experiences in Mathematics. What is easy for one person may be challenging for another.

<b>T</b>	<b>R</b>
Aug. 28: Sec 1.1	Aug. 30: Sec 1.2, 1.3
Sept: 4: Sec 2.1, 2.2	Sept. 6: Sec 2.3
Sept. 11: Sec 2.4	Sept. 13: Sec 2.5
Sept 18: Sec 6.1, 6.2	Sept. 20: Sec 6.2, 6.3
Sept. 25: Sec 7.1, 7.2	Sept. 27: Sec 7.5
Oct. 2: <b>Test 1</b>	Oct. 4: Sec 7.6
Oct 9: Columbus Day No Class	Oct 11: Sec 7.7
Oct. 16: Sec 5.1	Oct. 18: Sec 5.2
Oct. 23: Sec 5.3	Oct. 25: Sec 9.1, 9.2
Oct. 30: Sec 9.3	Nov. 1: Sec 10.1, 10.2
Nov. 6: Sec 10.4	Nov. 8: Sec 12.1
Nov. 13: <b>Test 2</b>	Nov. 15: Sec 12.2
Nov. 20: Sec 12.3	Nov. 22: Thanksgiving Holiday No Class
Nov. 27: Sec 12.5	Nov. 29: Sec 13.1
Dec. 4: Sec 13.2	Dec. 6: Course Review
Dec. 11: No Class	Dec. 13: <b>Final Exam</b> <b>7:30-10:15</b>

