

MTH 232 Fall 2013
Elements of Discrete Mathematics

Course Instructor (MWF): Mary Flahive

Office: Kidder 370

Office Hours: MWF 3–3:55 . Other hours are possible by appointment.

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Recitation Leader (Tuesdays): Hieu Do

Office: Kidder 262

Office Hours in MLC: Mon 9–10 Wed 9–10, 4–5

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Course Resources: *Discrete Mathematics (seventh edition)* by Richard Johnsonbaugh.

Your notes from class are also an important resource since you are responsible for all material presented in class, regardless of whether the material is discussed in the textbook.

Course Material: The syllabus for this course is the result of collaboration between the Mathematics Department and the School of Electrical Engineering and Computer Science. We will cover most of the material in Chapters 2, 6, 8, 9 in the text. Your exams and recitation quizzes will be based on the material in the lectures and in recitation as well as all material in the relevant sections of the textbook.

Exams: Midterm on October 30 during our regular Wednesday class time. (Probably in a different room.) Comprehensive final on Wednesday, December 11 from 12–1:50.

Makeups: Makeups will not routinely be given, and you must discuss the possibility of a makeup in advance. Absences will generally not be excused after the absence has occurred, except under very unusual circumstances.

Grading:

Recitation Grade: 100 points

Midterm: 100 points

Final: 125 points

Recitation Grade: The grade is based on seven quizzes given in recitation class. This will be discussed more in Tuesday's recitation.

Course Learning Outcomes: The successful MTH 232 student should:

- (a) Understand and construct direct proofs, including proofs using the Principle of Mathematical Induction.
- (b) Construct simple proofs using contradiction and contraposition.
- (c) Demonstrate an understanding of the logical foundation of some simple algorithms.
- (d) Use the Sum Rule and Product Rule in combinatorial arguments.
- (e) Construct complete explanations for solutions to counting problems.
- (f) Demonstrate a basic understanding of discrete probability.
- (g) Understand and use the matrix representation of finite graphs.
- (h) Use graphs to model systems.
- (i) Be able to use at least one algorithm for finding a minimal spanning tree in a connected graph.

Expectations for Student Conduct: Student conduct is governed by the university's policies, as explained by the Office of Student Conduct and Community Standards. Please carefully read the section labelled Offenses Proscribed by the University.

Statement Regarding Students with Disabilities: Accommodations are collaborative efforts between students, faculty and Disability Access Services (DAS). Students with accommodations approved through DAS are responsible for contacting the faculty member in charge of the course prior to or during the first week of the term to discuss accommodations. Students who believe they are eligible for accommodations but who have not yet obtained approval through DAS should contact DAS immediately at 541-737-4098.