

Math 3103
Section: 003

Combinatorial and Discrete Mathematics
MWF 9:40 – 10:30
MAIN 325

Fall 2019
Prof. Matthew Clay

Office: SCEN 326

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Website: <http://mattclay.hosted.uark.edu/Teaching>

Office Hours: Monday: 12:00 – 1:00, Wednesday: 1:00 – 2:00 and Thursday: 11:00 – 12:00
If you are unable to use any of the above times, please make an appointment to see me.

Text: *Discrete and Combinatorial Mathematics*, 5th edition, by Ralph P. Grimaldi

Prerequisites: MATH 2603 or MATH 2803 with a grade of C or better.

Goals: This course uses the tools and language of set theory and logic to investigate problems in enumeration including generating functions and recursion relations. Coding theory is also discussed beginning with an introduction to modern abstract algebra. At the end of the semester you will have an appreciation for how combinatorics and the concepts of modern algebra are applied and be able to use these tools to solve counting problems. We will cover chapters 1, 8 – 10, 14 and 16.

Academic Honesty Policy: As a core part of its mission, the University of Arkansas provides students with the opportunity to further their educational goals through programs of study and research in an environment that promotes freedom of inquiry and academic responsibility. Accomplishing this mission is only possible when intellectual honesty and individual integrity prevail. Each University of Arkansas student is required to be familiar with and abide by the University's "Academic Integrity Policy" which may be found at <http://honesty.uark.edu>. Students with questions about how these policies apply to a particular course or assignment should immediately contact their instructor.

Participation: Attendance is expected. After three unexcused absences, points will be deducted from participation grade.

Homework: Homework is assigned daily but will not be collected. It is expected that you have attempted each assigned problem. *Homework assignments are very important to the learning process. Math is not a spectator sport, the only way to get better is to practice.*

Exams/Quizzes: There will be three in class exams (Friday, September 20, Friday, October 18 and Friday, November 15) and a final exam on Wednesday, December 16 from 10:15 AM – 12:15 PM. There will be weekly take-home quizzes. *You must be present in class to receive a quiz.* The lowest quiz grade will be dropped.

A make-up for an exam will not be given without a compelling reason and my *prior consent*. *You must inform me before the exam* if you are to miss it due to illness, University related activity or religious holiday. A make-up for a quiz will only be allowed for justifiable and documented absences.

Challenge Problems: Each week there will be a challenge problem posted on Blackboard. A complete solution including justification is required to receive credit.

Calculators: Calculators are not permitted on any quiz or exam.

Course Grade:

- Participation - 2%
- Quizzes (Weekly) - 23%
- Challenge Problems (Weekly) - 5%
- Exam 1 (Friday, September 20) - 17%
- Exam 2 (Friday, October 18) - 17%
- Exam 3 (Friday, November 15) - 17%
- Final (Wednesday, December 16, 10:15 AM – 12:15 PM) - 24%

Letter grades: A : 100 – 90; B : 89 – 80; C : 79 – 70; D : 69 – 60; F : 59 – 0

Important Dates

Monday, August 26	Classes Start
Monday, September 2	Labor Day
Monday, September 9	Last day to drop without W
Friday, September 20	In class exam 1 (17% of grade)
Friday, October 18	In class exam 2 (17% of grade)
Monday, October 21 – Tuesday, October 22	Fall Break
Friday, November 15	In class exam 3 (17% of grade)
Friday, November 22	Last day to drop with W
Wednesday, November 27 – Friday, November 29	Thanksgiving Holiday
Thursday, December 12	Last day of classes
Wednesday, December 16	Final Exam (10:15 AM – 12:15 PM) (24% of grade)

See <http://registrar.uark.edu> for the complete academic calendar and final exam schedule.

Special Accommodation: Students who are registered with the Center for Educational Access must notify the instructor in writing by the end of the first week of class, or within one week of registering with CEA.

Inclement Weather Policy: Class will be held if the University is officially open. Allowances will be made if you are unable to safely reach the campus, but, bravely, class will go on! Do not call the Math office for inclement weather information. Instead, you should call the following telephone number: 575-7000.

Disclaimer: Information on this syllabus is subject to change. Any change will be announced in lecture.