Math 3103	**Combinatorial and Discrete Mathematics**	Fall 2014
Section: 001	MWF 8:35 – 9:25	Prof. Matthew Clay
	SCEN 322	

Office: SCEN 337 **Email**: mattclay@uark.edu **Phone**: 575–5195
Course Website: `http://comp.uark.edu/~mattclay/Teaching`

Office Hours: Monday: 9:30 – 10:30, Tuesday: 1:30 – 2:30 and Friday: 1:30 – 2:30
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.

Class Conduct: Attendance (both physical and mental) in lecture is *mandatory*. Using a mobile device inappropriately counts as an absence and *you will be asked to leave the classroom.*

Exams/Quizzes: There will be three in class exams (Friday, September 19, Friday, October 17 and Friday, November 14) and a final exam on Monday, December 15 at 8:00 – 10:00 AM. In place of one of the in class exams or the final exam a written project may be submitted.

There will be weekly quizzes, some of which will be take-home. 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. You must inform me either through a phone call or in person. A make-up for a quiz will allowed for justifiable and documented absences. *This is a very strict policy.*

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

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.*

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

Course Grade:

- Quizzes (Weekly) - 15%
- Challenge Problems (Weekly) - 10%
- Exam 1 (Friday, September 19) - 20%
- Exam 2 (Friday, October 17) - 20%
- Exam 3 (Friday, November 14) - 20%
- Level I Project (Friday, December 5) - 20%
- Final or Level II Project (Monday, December 15, 8:00 – 10:00 AM) - 25%

If a Level I project is submitted, the lowest in class exam will be dropped.

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

Important Dates

Monday, August 25	Classes Start
Monday, September 8	Last day to drop without W
Friday, September 19	In class exam 1 (20% of grade)
Friday, October 17	In class exam 2 (20% of grade)
Monday, October 20 – Tuesday, October 21	Fall Break
Friday, November 14	In class exam 3 (20% of grade)
Friday, November 21	Last day to drop with W
Wednesday, November 26 – Friday, November 28	Thanksgiving Break
Friday, December 5	Last day to turn in Level I project
Thursday, December 11	Last day of classes
Monday, December 15	Final Exam (8:00 – 10:00 AM) Level II project deadline (25% of grade)

See `http://calendars.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.