MAT 545   Syllabus   Fall 2010

Time & Place: Tuesday and Thursday, 9:30pm - 10:50pm;   Room 233, Physics

Course Description: Combinatorics is one branch of mathematics which has many applications in the ``real world." It is a problem-oriented subject. Both of these facts are reflected in the design of the course. Two of the most important topics within combinatorics are the Theory of Enumeration and Graph Theory. Graph Theory is the study of abstract incidence relations and Enumeration is the study of counting techniques. The course is divided between these two topics with about 75\% devoted to enumeration.

Text: *Applied Combinatorics 5th Ed.* by Alan Tucker. We will cover most of each of the chapters 1 through 9 of the text. Exactly which sections will be omitted will be decided as the course progresses.

Instructor: Professor Jack E. Graver
      Office: 229E in the Physics Building
      Office hours: Wednesday 9:00am to 10:30am,
                     Tuesday & Thursday 11:00am to 11:30am
      Extension: 1576,
      Email: jegraver@syr.edu.

Grading: There will a problem set collected for each chapter, a test on each part and a comprehensive (open book) final exam. These items will be weighted as follows:

7 Problem sets (5% each)	35%
3 Tests (15% each)	45%
Final Exam	20%

Final Grades: The assignment of the final letter grades will be based on the standard scale:

A	93-100%	B+	87-89%	C+	77-79%	D	65-69%
A-	90-92%	B	83-86%	C	73-76%	F	0-64%
		B-	80-82%	C-	70-72%		

Tentative Schedule:
      Test #1, Oct. 5, will cover Chapters 5, 6 & 7;
      Test #2, Nov. 4, will cover Chapters 8 & 9;
      Test #3, Dec. 9, will cover topics from Chapters 1 to 4.

The final exam is scheduled for Friday Dec. 17, 5:15pm to 7:15pm.
Every student is expected to take the final exam at this time!

Tentative Calendar
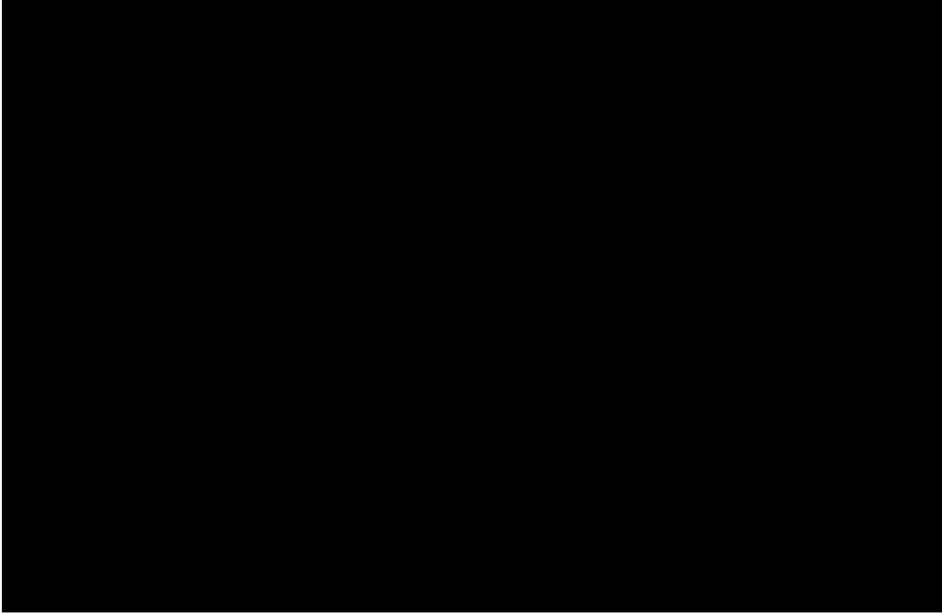
MAT 545 Learning Outcomes

• Ability to use and understand the usage of mathematical notation;
• Ability to follow proofs and other mathematical discourse;
• Ability to write simple proofs in the major proof formats (direct, indirect, inductive), and to engage in mathematical discourse;
• Ability to select an appropriate mathematical model for a given real world problem;
• Ability to apprehend and enunciate the limitations of conclusions drawn from mathematical models;
• Ability to do calculations with the aid of appropriate hardware and/or software;

College and Department Policy Statements

Getting Help: Your instructor and recitation instructor will be holding regular office hours and will make appointments with students having class conflicts with their scheduled office hours. In addition, the Mathematics Department offers regular math clinics. These will be set up by the second week of the semester and a schedule of the clinics will be posted outside the math office.

Cell Phones: All electronic devices other than the calculator should be turned off and put away during class. Calculators on cell phones are not to be used on tests or quizzes.

Students with Disabilities: If you believe that you need accommodations for a disability, please contact the Office of Disability Services (ODS), located in Room 309 of 804 University Ave. http://disabilityservices.syr.edu or call (315) 443-4498 for an appointment to discuss your needs and the process for requesting accommodations. ODS is responsible for coordinating disability-related accommodations and will issue students with documented disabilities Accommodation Authorization Letters, as appropriate. Since accommodations may require early planning and generally are not provided retroactively, please contact ODS as soon as possible. You are also welcome to contact me privately to discuss your academic needs although I cannot arrange for disability-related accommodations. Making arrangements with ODS takes time. Do not wait until just before the first test.

Academic Integrity: The Syracuse University Academic Integrity Policy holds students accountable for the integrity of the work they submit. Students should be familiar with the Policy and know that it is their responsibility to learn about instructor and general academic expectations with regard to proper citation of sources in written work. The policy also governs the integrity of work submitted in exams and assignments as well as the veracity of signatures on attendance sheets and other verifications of participation in class activities. Serious sanctions can result from academic dishonesty of any sort. For more information and the complete policy, see http://academic integrity.syr.edu