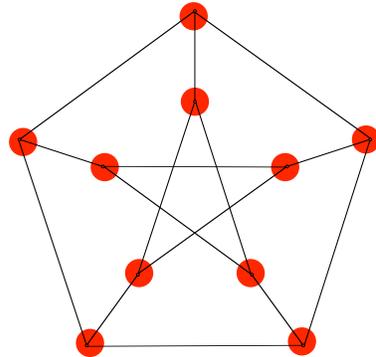


SYLLABUS

MAT 645

Spring

2013



Class Meetings: The class will meet on Monday, Wednesday and Friday from 9:35am to 10:30am in room 119, Carnegie.

Description: Graph Theory is a very large branch of mathematics and it has many applications in the “real world.” In this course, we will try to cover the basics and still include several real-world applications.

Text: *A Course in Combinatorics* by J. H. van Lint & R. M. Wilson. We plan to work through chapters 1, 2, 3, 4, 5, 7, 8 and 32, 33, 34, 35 & 36.

Instructor: Jack Graver

Office: 229E in the Physics Building

Office hours: 9:30am to 11:30am Tuesday & Thursday and
2:00pm to 4:00pm Wednesday. However, you are
welcome to stop by any time and, if I’m free, I’ll
be glad to talk with you.

Extension: 1576.

Email: jegraver@syr.edu.

The Final Exam: Tuesday, May 7 from 5:15pm to 7:15pm.

Note to the Class: Last Spring, Mark Watkins selected this text as one he thought would work well for both 646 and 645. I have never used it before but trust Mark’s judgement. However since it is a new text for me, the details in this syllabus are very tentative: the course will proceed by evolution rather than predestination. That includes setting test dates and problem set due dates - we will decide on these as a class. Mark has warned me that the problems can be very challenging and, of course, I don’t have a set of worked out solutions. So, we will be working through the tough ones together.

Tentative Calendar

Monday Wednesday Friday

<i>Jan.</i>	14	<i>C1</i>	16	<i>C2</i>	18	<i>C2</i>
	21	<i>no class</i>	23	<i>C2</i>	25	<i>C3</i>
<i>Jan.</i>	28	<i>PS</i>	30	<i>C3</i>	01	<i>C3</i>
<i>Feb.</i>	04	<i>PS</i>	06	<i>C4</i>	08	<i>C5</i>
	11	<i>PS</i>	13	<i>C8</i>	15	<i>C7</i>
<i>Mar.</i>	18	<i>PS</i>	20	<i>C7</i>	22	<i>matroids</i>
	25	<i>PS</i>	27	<i>matroids</i>	01	<i>C31</i>
	04	<i>PS</i>	06	<i>C31</i>	08	<i>C32</i>
	11	<i>no class</i>	13	<i>no class</i>	15	<i>no class</i>
	18	<i>PS</i>	20	<i>C32</i>	22	<i>C33</i>
<i>Apr.</i>	25	<i>PS</i>	27	<i>C33</i>	29	<i>C33</i>
	01	<i>PS</i>	03	<i>C34</i>	05	<i>C34</i>
	8	<i>PS</i>	10	<i>C34</i>	12	<i>C35</i>
	15	<i>PS</i>	17	<i>C35</i>	19	<i>C35</i>
<i>May</i>	22	<i>PS</i>	24	<i>C36</i>	26	<i>C36</i>
	09	<i>PS</i>				

Final Exam - Tuesday, May 7, 5:15pm to 7:15pm.

Tentative Organization: My plan is to lecture on Wednesdays and Fridays leaving Mondays for Problem Sessions and tests or quizzes. I may add a few topics as we go along. In particular, we will spend a couple of days on Matroid Theory, since Mark left that out of 645. Matroid Theory naturally comes up when considering the “greedy” algorithms in Chapters 2 and 7.

I am not at all sure that we will be able to cover everything in each of the chapters listed; we may well have to skip some topics. Just what we will skip will be decided as we go.

University Required Inclusions

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. 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. For more information: <http://disabilityservices.syr.edu>

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://academicintegrity.syr.edu>