Math 575 – Spring 2009

**Professor:** David Sumner  
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**Office Hours:** Wednesday 2:30 – 3:30 and Tu/Th 2:00 – 3:00 or by appointment.

**Textbook:** Optional. *A Textbook of Graph Theory* by R. Balakrishnan, and K. Ranganathan was used in a previous class. Another good option would be *An Introduction to Graph Theory* by Doug West.

**The World Wide Web**

**Help**
There will be a review session before each hour exam, and you are also encouraged to come see me about any problems you're having (or anything else for that matter). If you can't make the office hours, let me know when you'd like to come by or just stop in and see if I'm free. I enjoy having students stop by my office. I also answer e-mail.

**Grading**
The breakdown is as follows:
2 Exams at 100 points each for a total of 200 points  
12 quizzes at 10 points each for a total of 100 points (lowest two quizzes are dropped)  
Final exam 150 points  
Total 450 points

**Grading Scale**
90% - 100% A  
88% - 89%  B+  
80% - 87%  B  
78% - 79%  C+  
70% - 77%  C  
68% - 69%  D+  
60% - 67%  D  
0% - 59%  F

**Attendance and Homework**
Note that two quizzes are dropped for whatever reason. There are no makeups on quizzes. The Final Exam will be weighted more heavily to make up for a missed exam with a valid excuse. Homework will be assigned regularly and we will discuss any exercises that cause difficulty. Homework will not be collected and graded however.
Learning Outcomes
Learning outcomes include:
Be able to prove known theorems involving the Theory of Graphs.
Be able to prove new, basic results involving the Theory of Graphs.
Be able to apply algorithms for find shortest paths, minimum weight spanning trees.
Be able to determine small classical and general Ramsey Numbers.
Be able to show that a graph is not planar by using Kuratowski’s Theorem.
Be able to show that a graph is not planar by apply any of several standard criteria.
Be able to color a graph in greedy fashion.
Know and be able to construct the Petersen Graph, Grotsch Graph, and other classical graphs.
Be able to determine the number of spanning trees of a graph and be able to find the Prüfer code of a tree.

Tentative Exam Schedule

Exam 1: Thursday, February 19
Exam 2: Thursday, April 9

Final Exam: May 2, 9:00AM