MCS 423 – Graph Theory  
Fall 2015  
Undergraduate: 38586 LCD, Graduate: 38587 LCD  
9:00 - 9:50 MWF  
Lincoln Hall 201  

Instructor: Shmuel Friedland  
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OFFICE HOURS: MW 11:30-12:30, F 8:00-8:50, or by appointment.  

TEXT:  

PREREQUISITES: Mathematical maturity.  

OUTLINE OF THE COURSE  
This course is a basic course in graph theory. Graphs are used extensively in the field of discrete mathematics, in applied and theoretical computer science. The course covers basic concepts of graph theory including Eulerian and Hamiltonian cycles, trees, colorings, connectivity, shortest paths, minimum spanning trees, network flows, matching, planar graphs. We will try to cover most of the topics in Chapters 1 - 7 and §8.6 in the text book. More precisely: 1.1 - 1.4; 2.1 - 2.3; 3.1 - 3.3; 4.1 - 4.3; 5.1 - 5.3, 6.1 - 6.2; 7.1 - 7.2; 8.6.  

GRADING:  
1. Quizzes and Homework - 25%. (Usually there would be 10 minutes quiz in the end of the class once a week, except the first week of classes, and the exam week.)  
2. Midterm: October 14, 2015, 25%.  
3. Final Exam: Tuesday, December 8, 10:30-12:30, 50%.  
Final Exam 1:00-3:00 PM, Tuesday, December 8, 2015.  

Academic Honesty: The students can work in groups on HW problems. However, each solution should be written by each student individually. Instances of academic misconduct (including cheating, fabrication, plagiarism, threats, examination by proxy) shall be handled pursuant to the student Disciplinary Policy.