MCS 423 – Graph Theory
Spring 2011
Undergraduate: 30023 LCD, Graduate: 30024 LCD
10:00 - 10:50 MWF
Lincoln Hall 100

Instructor: Shmuel Friedland
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OFFICE HOURS: 12:30-1:30 MW, 8:30-9:30 F.

TEXT:
available free to UIC students from the electronic resources.
http://lib.myilibrary.com.proxy.cc.uic.edu/Open.aspx?id=134028&cloc=&srch=undefined&src=0

PREREQUISITES: *Grade C or better in:* MATH 215, (Introduction to Advanced Mathematics); MATH 310, (Applied Linear Algebra) or MATH 320 (Linear Algebra); or consent of the instructor.

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. We covered the following Chapters in the book [1].

- Chapter 1, §: 1.1, 1.2, 1.5.
- Chapter 2, §: 2.1, 2.2, 2.3.
- Chapter 3, §: 3.1, 3.2, 3.3, 3.4, 3.5 (the cycle double cover conjecture.)
- Chapter 4, §: 4.1, 4.2.
- Chapter 5, §: 5.1, 5.2.
- Chapter 6, §: 6.1, 6.2.
- Chapter 7, §: 7.1, 7.2, 7.3.
- Chapter 9, §: 9.1, 9.2, 9.3.
- Chapter 10, §: 10.3.
- Chapter 13, §: 13.1, 13.2, 13.3, 13.4 (threshold functions.)
- Chapter 14, §: 14.1, 14.2, 14.3.
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 weeks.)
2. One exams in the middle of the course - 25%. The exact day will be announced later.
3. Final Exam - 50%, May 6, 2011.