

Course Outline — SPRING 2016
MATH 412: INTRODUCTION TO GRAPH THEORY

Sections X13, X14 : 12:00-12:50 pm MWF, 243 Altgeld Hall

Web page: <http://www.math.uiuc.edu/~jobal>

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office hours: After classes or by appointment. Communication via e-mail is strongly encouraged

Study Session: Wednesday 1:30-2:50 pm, 2 Illini Hall.

Study session of the other 412 class, feel free to attend, but check for possible cancellations:

Wednesdays 5:30-6:30 pm:

Final Exam: 1:30-4:30 p.m. Thursday, May 12.

TEXT: Introduction to Graph Theory, D. West (Prentice Hall), 2-nd ed., Chapters 1-7.

This is a serious introduction about properties and applications of graphs. The concepts and theories of paths, circuits (including Euler and Hamiltonian), network flows, coloring, planarity and trees are studied deeply.

REQUIREMENTS:

There are 3 midterms and 9 homework assignments.

Each midterm is for 100 points.

The final is for 200 points and will cover all of the course material.

There are (about) 6 popquizes, the best 5 is counted, a total of 50 points.

Each of the nine homework is counted, and from each homework out of the 6 exercises, the best 5 is counted (a total of 50 points). For students taking for 4 credits, ALL the HOMEWORK is a MUST!

There is one make up midterm [so the total number of midterms is 4], students should try to take all, the best 3 scores are counted. Students missing more than one midterms should well-document it, and in general there is no conflict exam.

The total score is 1000 points, the grading is

800 – A , 750 – A^- , 700 – B^+ , 650 – B , 600 – B^- , 550 – C^+ , 500 – C , 450 – C^- , 400 – D^+ , 350 – D , 300 – D^- .

To get C^- or better, at least 40% is needed on the final exam.

To get A at least 60% is needed on the final exam.

The scale for graduate students registered for 1 unit (4 hours) is different. Graduate students must get 50 points higher than undergraduate students to get the same grade, e.g. to get an A , a graduate students must get 850 points.

Some very excellent students might get an A^+ .

The tests are evening exams, and instead some classes will be cancelled. The dates of the tests are decided during the semester.

RESOURCES: Electronic mail is a medium for announcements and questions. Collaborative study sessions are offered before tests to aid students in understanding the material and solving problems.

PREREQUISITES: There are no official prerequisites, but students will be best prepared if they have encountered logical reasoning, induction, and equivalence relations.