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
József Balogh, 233B Illini Hall, 244-1918, jobal@math.uiuc.edu

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.