Math 496, section 001, Fall 2013

Lecture: MWF 10:20-11:10 in A-122 Wells Hall (WH).

Lecturer: Dr Effie Kalfagianni, D-323 Wells Hall
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Office hours: By appointment.

Background This course is designed primarily for undergraduates students that have completed the basic sequence of Calculus courses and have had some background in writing proofs. The students must have completed MTH 309 or MTH 314, MTH 310, and MTH 320 (or the honors equivalent).

Textbook: Adams, Colin C. "*T*he knot book. An elementary introduction to the mathematical theory of knots. Revised reprint of the 1994 original. American Mathematical Society, Providence, RI, 2004. xiv+307 pp. ISBN: 0-8218-3678-1

Contents: This course will be an elementary introduction to the mathematical theory of knots with emphasis in some developments that occurred in the last twenty years. We will describe the different classications of knots, their properties, various ways for measuring their complexity and some applications of knot theory to biology and physics. Since some open problems in this area can be explained at an elementary level, students will also have the opportunity to get a taste of what it is like to do research in mathematics. We expect to cover material from the first eight chapters of the textbook.

Assignments/presentations: There will be regular homework assignments (approximately every 2-3 weeks.) The usual time for assignment completion will be a week. Late homework will not be accepted. You are encouraged to discuss the assignments problems with each other. However write-ups you turn in must be your own work. Some assignments will require you to give a short blackboard presentation.

Homework guidelines: Please write legibly. Proofs should be double spaced and written in complete sentences.

Exams: There will be a take home nal exam. The details and dates will be announced later in the semester.

Missed Lecture(s): If you miss a class, you are responsible for covering the material before you return to class. You should read the corresponding section(s) of the book and if possible get notes from a classmate. Although you are encouraged to discuss your questions with me during office hours, note that office hour consultations cannot be used as a substitute of a missed class.

Grading scheme/Determination of nal grade: Your nal grade will be based on the scores of your written assignments and presentations (70%) and your nal exam score (30%).

Important Dates for Fall Semester 2013:

Wednesday 08/28/13: Classes Begin. Students should go to scheduled Monday classes on the first day.

Monday 09/02/13: Labor Day. University is closed.

Wednesday 09/04/13: Online open add period for fall ends at 8pm.

Thursday 09/05/13 to Wednesday 09/11/13: Students can go to Undergraduate office, C212 Wells Hall for enrollment changes. (Late adds, drop to lower course, section changes.)

Wednesday 09/11/13: Last day to late add a course or change sections within a course. Last day to drop to a lower level course.

Monday 09/23/13: End of 100% Tuition Refund.

Wednesday 10/16/13: Middle of Semester. Last day to drop a course without a grade being reported.

Thursday 11/28/13 to Friday 11/29/13: Thanksgiving Break.

Friday 12/06/13: Last day of classes.

Academic Dishonesty: The University's policy concerning academic integrity is covered by the Spartan Life handbook in the General Student Regulations section. For relating information, please consult the handbook or visit the Spartan Life web sites at

http://splife.studentlife.msu.edu/

https://www.msu.edu/ ombud/academic-integrity/index.html