

Math 496, section 001, Spring 2017

Lecture: MWF 9:10-10.00 in A-108 Wells Hall (WH).

Lecturer: Dr Effie Kalfagianni, D-323 Wells Hall

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Office hours: W 2-3:15 , F 2-3:15 or 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. “*The 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 classifications 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.

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 final grade: Your final grade will be based on the scores of your written assignments and presentations.

Important Dates for Spring Semester 2017:

Monday 01/09/17: Classes Begin.

Monday 01/13: Online open add period ends at 8 p.m

Monday 01/16: Martin Luther King Day- classes cancelled

Friday 02/03: End of tuition refund period.

Wednesday 03/01: Middle of Semester. Last day to drop a course without a grade being reported.

Monday, 3/6-Friday, 3/10: Spring Break.

Friday, 4/28: Last day of classes.