

MATH 5863—Section 001 Topology II

This is the information sheet for Topology, MATH 5863—Section 001, for the Spring Semester 2011.

Instructor: Dr. Noel Brady.

E-mail: nbrady@math.ou.edu

Office: 521 Physical Sciences Center [PHSC].

Phone: 325-0833

Web Page: <http://math.ou.edu/~nbrady>

Math Office: 423 PHSC.

Math Office Phone: 325-6711

Course Web Page. <http://math.ou.edu/~nbrady/teaching/s11-5863>

Office Hours. Mon 9:00-10:00am; Tue 11:00-noon; Thu 10:30-11:30am. Or by appointment.

Text and Course Outline. This semester we will concentrate on the fundamental group and covering spaces. We shall follow chapters 0 and 1 of the book *Algebraic Topology* by Allen Hatcher. You can find a copy of these chapters here

<http://www.math.cornell.edu/~hatcher/AT/ATchapters.html>.

You should also look at sections of the first semester textbook, *Topology* (2nd Edition), by James R. Munkres. The book *Algebraic Topology: An Introduction* by W. S. Massey (Springer GTM #56) is an excellent resource for fundamental groups, covering spaces and applications.

Grading Scheme. Grades will be assigned by weighting your totals from Homework, Midterm, and a Final Examination as follows:

| | |
|--------------------------|-----|
| <i>Homework</i> | 40% |
| <i>Midterm</i> | 20% |
| <i>Final Examination</i> | 40% |

Homework. There will be a weekly homework discussion in 1105 PHSC. I have booked this room for two times: Tuesdays at 8am, and Fridays at 8:30am. For the first month or 6 weeks we will use both times. This is to make up for missed classes throughout the semester.

You will need to spend a lot of time working problems and figuring out details of particular examples in order to become familiar with this material. You can work together to discuss homework problems, but the final written scripts should be in your own words. It is strongly recommended that you attend the morning discussion sessions.

Midterm. The midterm examination will be held in class sometime around the middle of the semester. It should cover the basic facts about π_1 and the Seifert-van Kampen theorem.

Final Examination. The final examination is cumulative. It is scheduled for Friday, May 13 from 1:30pm until 3:30pm, and is held in the usual classroom — PHSC 119.