

**Math 8220, Introduction to Topology 2**  
**Spring 2015**

**Class meetings:** MWF 2:00-2:50 p.m. in ECCR 131

**Instructor:**

Dr. Judith Packer  
MATH 227  
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<http://spot.colorado.edu/~packer/156220.html>

**Office hours:** MWF, 12:00 p.m. - 1:00 p.m., or by appointment

**Prerequisites:** This course has as a prerequisite the course Math 6210, Introduction to Topology 1, or the instructor's approval.

**Text:** "*A Basic Course in Algebraic Topology*", W. Massey, Springer Verlag. We will cover much of Chapters VI through XIII of the textbook. The exact same material can be found in Massey's book "*Singular Homology Theory*", Chapters I through VIII.

**Course outline:** Topics to be covered come from an introduction to homology and cohomology theory. These topics include the definition of the singular homology groups of a topological space and their basic properties; ways of calculating the homology groups of a space, including the Mayer-Vietoris exact sequence; an introduction to CW complexes and their homology; homology with arbitrary coefficient groups; the homology of Cartesian product spaces, including the Künneth theorem; cohomology theory; and products involving homology and cohomology groups. If time permits we will cover more material from the textbook, depending on the interests of the students and the instructor. Other topics will be covered as time permits.

**Assessment:** Grades will be assigned based on performance in homework assignments (50%), an in-class quiz on Wednesday, Feb. 18 (20%), and a take-home final exam (30%).

**Homework:** 50% of your final grade will be come from your performance on homework, which will be assigned every three weeks or so. From time to time I will ask people to present solutions to the problems in class.

**Important Dates:**

- **January 28 (Wed.):** Last day to drop a course without Tuition/Fee charges and without a "W" appearing on your transcript.
- **March 20 (Fri.):** Last day to drop a course via MyCUInfo; Last day for students to make arrangements with their instructor if they have three or more final exams on the same day or two final exams scheduled to meet at the same time.
- **May 1 (Fri.):** Last day for students to withdraw from the university for Spring semester. All withdrawals are assessed 100% of tuition and fees (\$0 refund) and W grades are posted to transcripts.

**Accommodations for disabilities:** If you qualify for accommodations because of a disability, please submit to me a letter from Disability Services in a timely manner (for exam accommodations provide your letter at least one week prior to the exam) so that your needs can be addressed. Disability Services determines accommodations based on documented disabilities. Contact Disability Services at 303-492-8671 or by e-mail at [dsinfo@colorado.edu](mailto:dsinfo@colorado.edu).

If you have a temporary medical condition or injury, see Temporary Injuries under Quick Links at Disability Services website (<http://disabilityservices.colorado.edu/>) and discuss your needs with your professor.

**Religious observances:** Campus policy regarding religious observances requires that faculty make every effort to deal reasonably and fairly with all students who, because of religious obligations, have conflicts with scheduled exams, assignments or required attendance. In this class, assignments will either be rescheduled or dropped from grading calculations depending on the nature of the conflict. If you have a conflict, please advise me as soon as possible so that arrangements can be made. See full details at [http://www.colorado.edu/policies/fac\\_relig.html](http://www.colorado.edu/policies/fac_relig.html)

### **Miscellaneous University Rules & Regulations:**

- **Honor Code:** All students of the University of Colorado at Boulder are responsible for knowing and adhering to the academic integrity policy of this institution. Violations of this policy may include: cheating, plagiarism, aid of academic dishonesty, fabrication, lying, bribery, and threatening behavior. All incidents of academic misconduct shall be reported to the Honor Code Council ([honor@colorado.edu](mailto:honor@colorado.edu); 303-725-2273). Students who are found to be in violation of the academic integrity policy will be subject to both academic sanctions from the faculty member and non-academic sanctions (including but not limited to university probation, suspension, or expulsion). Additional information on the Honor Code can be found at <http://www.colorado.edu/policies/honor.html>  
<http://www.colorado.edu/academics/honorcode/>
- **Classroom behavior policy:** Students and faculty each have responsibility for maintaining an appropriate learning environment. Those who fail to adhere to such behavioral standards may be subject to discipline. Professional courtesy and sensitivity are especially important with respect to individuals and topics dealing with differences of race, culture, religion, politics, sexual orientation, gender, gender variance, and nationalities. Class rosters are provided to the instructor with the student's legal name. I will gladly honor your request to address you by an alternate name or gender pronoun. Please advise me of this preference early in the semester so that I may make appropriate changes to my records. See policies at <http://www.colorado.edu/policies/classbehavior.html>  
[http://www.colorado.edu/studentaffairs/judicialaffairs/code.html#student\\_code](http://www.colorado.edu/studentaffairs/judicialaffairs/code.html#student_code)
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303-492-2127 or the Office of Student Conduct (OSC) at 303-492-5550. Information about the ODH, the above referenced policies, and the campus resources available to assist individuals regarding discrimination or harassment can be obtained at <http://hr.colorado.edu/dh/>