Math 635—Winter 2024—CRN 23261
Course Information

Instructor	Robert Lipshitz
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Office	Fenton 303
Office Hours	M 2:00–3:00, W 4:00–5:00
	Time and format subject to change.

Course Prerequisites	Math 634.
Course Requirements	There will be homework due roughly once a week, required peer feedback on homework once a week, a midterm exam, and a final exam. There *will* be new material covered and homework assignments due during the last week of classes.
Test Dates	*Midterm*: February 7. Subject to change if necessary. *Final exam*: per Registrar's schedule. See below for policy regarding missed exams.
Grading Policy	Homework — 32% Giving peer homework feedback — 5% Midterm — 23% Final Exam — 40% The lowest homework score will be dropped, as a uniform way of handling illnesses, family crises, and other events that might interfere with the course.
Students with disabilities	The University of Oregon is committed to an inclusive learning environment. If you have a disability which may impact your performance on exams, please contact the Accessible Education Center to discuss appropriate accommodations. If there are other disability-related barriers to your participation in the course, please either discuss them with me directly or consult with the Accessible Education Center.

Course Policies

- You should read the material in the textbook once *before* it is covered in class, and then again after it is covered in class.
- Using electronics, notes, or the textbook on exams is not permitted. Getting help from anyone other than the instructor on an exam is also cheating. Any instance of cheating

will result in a zero on the assignment and being reported to the university, with a recommendation of failing the class.

- Each homework assignment is worth 4 percent of the grade (since one is dropped). If the course is without GTF grader for some period of time, homework sets during that time will not be graded or counted in the grade. For each ungraded homework assignment, the midterm exam will count for 2 percent more and the final exam will count for 2 percent more.
- Posting any course materials to Chegg or other online sites is a violation of policies, and will be reported to the university for disciplinary action.
- You are welcome to work on the homework together, but you must write up your final answers by yourself. Failure to abide by this policy constitutes cheating.
- Any resources you use when solving homework problems, other than the textbooks, must be cited in your homework. This includes human resources: if someone helped you with the homework, say who and what they helped you with. You may *not* use electronic resources (e.g., Google, ChatGPT) other than the textbook and recommended textbooks. Failure to follow this policy constitutes cheating; if you are caught cheating on the homework you will receive a 0 for the homework portion of the class and will be reported to the administration. Failure to cite sources constitutes academic misconduct.

Missed Exams

- If you have a conflict with the midterm exam and you alert me at least 10 days in advance, you will have the opportunity to take a version the exam a few days early, without penalty. In particular, this is the mechanism for accommodating cases 3 and 4 in the UO Attendance and Engagement policy.
- If you miss the midterm exam you will be given the opportunity to take an oral midterm exam as a make-up, by the end of week 7.
- If you miss the final exam and have a passing score in the rest of the course you will receive an Incomplete in the course, and be allowed to take a makeup final exam during the first week of the Spring Quarter to resolve the Incomplete. If you do not take the makeup exam will receive a 0 on the exam.
- If you miss the final exam but were otherwise failing the class, you will not have an opportunity to re-take the exam, and will receive and F in the class.

Course Resources

- Textbook: *Algebraic Topology*, by Allen Hatcher. Available in print, or online at pi.math.cornell.edu/~hatcher/AT/ATpage.html
- We will use Canvas to track grades and post solutions.
- There is also a non-Canvas course website, with up to date syllabus and assignments:

pages.uoregon.edu/lipshitz/Teaching/Wi24Ma635.html

Getting Help. I have office hours every week. Get help as soon as you feel confused.

Course goals. The main goals of this course (learning outcomes) are:
- Being able to compute and apply homology and cohomology, including the ring structure on cohomology.
- Understanding and applying the notion of homology orientations and Poincaré duality.

General university policies

General university policies, discussing academic disruptions, COVID, reporting requirements, and so on, are here:

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https://provost.uoregon.edu/syllabus-guidelines

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Grading standards

Grades will be assigned in a way consistent with the following standards:

A+	Truly outstanding work
A	Good Ph.D. or M.S./M.A. level work
A-	Clearly Ph.D. level work, but below average. Good at M.S./M.A. level
B+	Work which is at the lower margin of acceptable Ph.D. level work, but quite satisfactory at the M.S./M.A. level
B	Substandard at the Ph.D. level but satisfactory at the M.S./M.A. level
B-	Barely passing at the graduate level
C+ or below	Unsatisfactory at the graduate level

A combined score of 90% or more will guarantee you receive *at least* an A-, a combined score of 80% or more will guarantee you receive at least a B-, and a combined score of 70% or more will guarantee you receive at least a C-; but the cutoffs may be more generous than this.