Math 259 - Spring 2020
Exam 1 Information

Exam 1 will be in class on Wednesday February 19. It will cover roughly Sections 12 through 18 of Munkres's *Topology*, please see details below.

Please read these instructions carefully, as not heeding them will constitute a breach of the UVM Code of Academic Integrity:

- You may not use a calculator or any notes or book during the exam.
- You may not access your cell phone during the exam for any reason; if you think that you will want to check the time please wear a watch.
- The work you present must be your own.
- Finally, you will more generally be bound by the UVM Code of Academic Integrity, with which you should familiarize yourself if you haven't already.

You will be asked to acknowledge that you have read these instructions on the first page of the exam.

For each problem, you **must** write down all of your work carefully and legibly to receive full credit **and** use theorems and/or mathematical reasoning to support your answer, as appropriate.

Things that could be on Exam 1:

- Any proof or problem that is identical or substantially similar to a problem that was assigned on the homework so far, including Homework 6. All homework solutions are posted on our course website (or will be soon in the case of Homework 5 and 6).
- You may be asked to give any definition we have covered in class: topology, topological space, open set, discrete topology, trivial topology, basis for a topology, the topology generated by a basis, the standard topology on $\mathbb{R}$, the order topology, the product topology, projection map, the subspace topology, closed set, the closure of a set, neighborhood of a point, limit point of a set, Hausdorff space, and continuous function.
- You can also use without proof any result from the textbook. In that case, it is not necessary to quote the correct theorem number. In particular, you should be ready to use Lemma 13.1, Lemma 13.2, Theorem 15.1, Lemma 16.1, Lemma 16.2, Lemma 16.3, Theorem 17.1, Theorem 17.2, Theorem 17.3, Theorem 17.4, Theorem 17.5, Theorem 17.6, Corollary 17.7, Theorem 17.8, Theorem 17.11, and Theorem 18.2.

Note about graduate credit: There will be an extra question for graduate credit. This will count as a required part of the exam for any student taking the course for graduate credit. For anyone not taking the course for graduate credit, the assigned grade will be the maximum of the grade including the question for graduate credit and the grade not including the question for graduate credit.