

Course Syllabus
MAT 300–Topology
Section A
Spring 2019
Dr. John Peter
Utica College

Course Description: This course will cover basic point–set topology with a focus on developing material relevant to the study of algebraic topology. This is a course in pure mathematics.

Course Learning Goals:

- In accordance with the Program Learning Goals of the Mathematics Department, students will demonstrate an ability to formulate and solve mathematical problems (PLG3), an ability to read, write, and analyze mathematical proofs (PLG2), and an ability to communicate mathematics in written form (PLG5).
- The student should understand the notion of continuity from both intuitive and rigorous points of view.
- The student should know the definition of a topological space, be familiar with several of the standard ways that one can topologize a set, and be able to relate these ideas to their understanding of continuity.
- The student should be able to define and rigorously investigate topological properties such as compactness and connectedness, and be familiar with some of the separation axioms (in particular the Hausdorff property).
- The student should know what a homeomorphism is and be able to determine, in some simple cases, whether two spaces are homeomorphic. The student should also become familiar with product spaces, quotient spaces, and gluing constructions.
- The student should learn the basic definitions of homotopy theory.

Course Webpage: https://www.utica.edu/faculty_staff/jpeter/mat300s19.cfm

Required Text: *Essential Topology* by Martin Crossley. ISBN: 978-1-85233-782-7

Class Meetings: Monday, Wednesday, & Friday from 11:30am to 12:20pm in 211

Hubbard

Contacting me: EMAIL: jwpeter@utica.edu (The best way to contact me)
OFFICE PHONE: 315-792-3730

Office/Hours: Room 257 White Halll
Tuesday, Thursday from 11:30AM to 1:00PM
or By Appointment (made either in person or by email)

Coursework/Weights:

Assessment	% of Final Grade
Weekly Homework	25%
Midterm Exam 1	25%
Midterm Exam 2	25%
Final Exam	25%

Final Exam Date/Time: Saturday, 5/4/2019 at 1pm

NO MAKE-UP WORK WILL BE GIVEN.

Grading: The grading scale will be *no worse* than:

90 – 100% = A/A- 70 – 79% = C+/C/C- Below 60% = F
80 – 89% = B+/B/B- 60 – 69% = D+/D

Secrets to success in this course:

- Do lots of problems . . . assigned homework and more!
- Come to class
- Read the book
- ASK QUESTIONS!

Attendance: It is mandatory that I keep track of your attendance. An attendance sheet will be available for you to sign at the beginning of each class. **YOU ARE EXPECTED TO ATTEND EVERY CLASS PERIOD.** In the event that you miss class (or are mentally absent from class!) it is your responsibility to keep up with all announcements, syllabus adjustments, and/or policy changes made during scheduled class time and/or sent to you via your Utica College email. Please make sure that your Utica College email is functioning properly, and make every effort to contact me using your Utica College email address (that is, be sure to use the address ending in “@utica.edu”) to avoid confusion. If class must be cancelled for some reason, you will be notified as early as possible via your Utica College email.

Classroom Etiquette: Always keep in mind that you are in a college classroom. You and all of the people around you have paid to be here. By simply showing up for class, you are demonstrating that you take very seriously the opportunity to pursue the best learning experience possible. You are expected to treat all people in the classroom with respect, and to come to class prepared to learn. **Disruptive behavior, including (but not limited to) talking, whispering, texting, eating loudly, etc. will negatively impact EVERYONE’S experience and will not be tolerated.**

Academic Honesty: Academic honesty is necessary for the free exchange of ideas. Utica College expects academic honesty from all students and Utica College faculty are authorized to assign a wide range of academic penalties for incidents of academic dishonesty. Academic dishonesty includes both cheating and plagiarism. Plagiarism is the intentional or unintentional use of other people’s ideas, words, and/or factual information as your own and without crediting the source. It doesn’t matter if the words come from a book, journal article, web site, or personal letter; if somebody else originally wrote them you may not use them without attributing them to that individual by appropriately citing the source. Plagiarism also refers to self-plagiarism, or re-purposing material that you’ve already completed for another course or assignment. Cheating refers to giving and/or receiving unauthorized assistance in taking examinations or creating assigned and/or graded class work. Students who assist other students in, or contribute to, acts of academic dishonesty are subject to the appropriate penalties.

As mentioned above, Utica College faculty are authorized to assign a wide range of academic penalties for incidents of academic dishonesty. Depending on the nature of the offense, the penalty may include a reduced grade or grade of zero for the particular assignment, a grade of F for the course, or the grade of “F for cheating” in the course. Incidents of academic dishonesty are reported to the Vice President for Academic Affairs who will refer any repeat offense, or any particularly egregious first offense, to the Academic Standards Committee which may recommend a more severe penalty than that imposed by the faculty member.

Disability Disclosure: Any student who has need of special accommodations in this class due to a documented disability should speak with me as soon as possible, preferably within the first two weeks of class. You should also contact the Director of the Office of Learning Services (315-792-3032) in order to determine eligibility for services and to receive an accommodation letter. We will work with you to help you in your efforts to master the course content in an effective and appropriate way.

Writing Proficiency: Students are expected to possess and use adequate writing skills. All written assignments should be well-written and free of grammar, punctuation, and spelling errors. Help is available in the Writing Center located in the library.

Math and Science Center: Peer tutors are available in the Math and Science Center located on the first floor of the library. These services are typically available beginning in the second week of a Fall/Spring semester.

Tentative Course Schedule

1/14: Syllabus / Introduction / 2.1	2/6: Section 4.1
1/16: Section 2.2	2/8: Section 4.1 contd
1/18: Section 2.3	2/11: Section 4.2
1/21: No Class - MLK Day	2/13: Section 4.2 contd
1/23: Section 2.4	2/15: Section 4.3
1/25: Section 3.1	2/18: Section 5.1
1/28: Section 3.2	2/20: Section 5.1 contd
1/30: Section 3.2 contd	2/22: MIDTERM EXAM 1
2/1: Section 3.3	2/25: Section 5.2
2/4: Section 3.4	2/27: Section 5.2 contd
	3/1: Section 5.3

3/4: Section 5.3 contd	4/5: Section 6.3 contd
3/6: Section 5.4	4/8: Section 6.4
3/8: Section 5.4 contd	4/10: Section 6.4 contd
3/11 - 3/15: No Class - Spring Break	4/12: Section 6.5
3/18: Section 5.3 cont'd	4/15: Section 6.5 contd
3/20: Section 5.4	4/17: Section 7.1
3/22: Section 6.1	4/19: Section 7.1 contd
3/25: Section 6.1 contd	4/22: Section 7.2
3/27: Section 6.2	4/24: Section 7.2 contd
3/29: MIDTERM EXAM 2	4/26: Section 7.3
4/1: Section 6.2 contd	4/29: Section 7.3c contd
4/3: Section 6.3	

The author of this syllabus reserves the right to change it at any time during the semester.