University of Illinois at Urbana-Champaign
Department of Mathematics
MATH 535 - General Topology
Fall 2013

Course Information:
Course: MATH 535
Section: X1
Time & Location: MWF 12:00-12:50pm in 443 Altgeld Hall
Website: `http://www.math.uiuc.edu/~jawatts/math535f13/index.html`

Instructor Information:
Instructor: Jordan Watts
Email: jawatts@illinois.edu
Office Hours: W 11-12 (with condition that I may be late), W 4-5, or by appointment
Office: 238 Illini Hall

Brief Course Description:
This course is an introduction to point set topology. We will (try to) cover the following topics:

- definitions and examples of topological spaces and continuous maps,

- bases and subbases,

- subspaces, products, and quotients,

- metrics and pseudometrics,

- nets,

- separation axioms: Hausdorff, regular, normal, etc.,

- connectedness, local connectedness, path connectedness,

- compactness, Tychonoff's theorem,

- Urysohn's Lemma, Tietze's Extension Theorem,

- countability axioms,

- paracompactness and partitions of unity,

- metrisability,

- topology on function spaces,

- categories, functors, and natural transformations,

- the fundamental groupoid, covering spaces

Prerequisites and Restrictions:
4 credit hours. MATH 444, 447, or equivalent, or consent of instructor. Basically, you should know and be comfortable with what open and closed sets are in Euclidean space, as well as continuous functions, sequences, limits, etc.

Texts:
There will be no required text for MATH 535. The recommended text will be:
  Topology and Groupoids
Author: Robert Brown Edition: 2006
Publisher: BookSurge Publishing Note: There is a webpage for the book here: `http://pages.bangor.ac.uk/~mas010/topgpds.html` and a cheaper digital version can be found here: `https://store.kagi.com/cgi-bin/store.cgi?storeID=6FEPD_LIVE`.
  Other potentially useful books include:

- *General Topology* by S. Willard (there is a Dover edition)

- *Topology* by Munkres (any edition)

- *Topology and Geometry* by Bredon (Springer)

- *Counterexamples in Topology* by Steen and Seebach (Dover)

Academic Integrity:
Academic Integrity may be summed up by the phrase, "your work must be your own." Violations will be processed according to the established guidelines. Please note that "it is the responsibility of the student to refrain from infractions of academic integrity, from conduct that may lead to suspicion of such infractions, and from conduct that aids others in such infractions" (§1-401 of the Student Code). Violations of academic integrity include, but are not limited to, cheating, fabrication, or plagiarising as outlined in §1-402 of the Student Code. A range of academic sanctions may be taken against a student who engages in academic dishonesty. Please see the §1-401 through §1-406 of the Student Code for additional information and procedures.

Grading:

Assessment	Percent of Final Grade
Final Exam	30%
Homework	70%

- *Final Exam:* A comprehensive final will be administered at the end of the course. The date and location will be announced later.

- *Homework:* There will be 13 weekly homework assignments, of which the best 10 will count toward your final grade. Each homework will be due at the beginning of class on Fridays. LATE HOMEWORK WILL NOT BE ACCEPTED. Also, while you are encouraged to work together, your assignments are expected to be in your own words. Copying of any kind is considered an academic offence and will be dealt with accordingly.

- *Bonus:* If your final exam average is better than your homework average (after dropping the lowest three), then your grade will be re-weighted: the final will be worth 40% and the homeworks 60%.

Attendance Policy:
Students are expected to attend all classes and are responsible for all information presented. If you miss a class, it is your responsibility to get notes on what you missed. For University excused absences as outlined in §1-501(c) of the Student Code, typically your grade for any missed work will be based on your grade for the final exam. For other legitimate and unavoidable reasons, please notify me ASAP so we may discuss how to make up any missed work.

Calculators, Portable Electronic Devices, and Distracting Behaviours:
No calculators are permitted on exams, so study accordingly. The use of any portable electronic device (cell phones, e-readers, mp3 players, etc.) during class without prior permission of the instructor is prohibited. Other behaviours (reading a newspaper, etc.), which the instructor deems distracting, must be stopped in class. **Failure to adhere to this policy may result in a lowered overall grade.**

Emergency Information:

In case of fire:

1. Determine evacuation routes in advance.

2. Calmly walk to the exit, following these routes.

3. Gather at a safe distance from the building so that it can be checked that everyone is out.

4. If you cannot exit, close the door, open the window, and signal firefighters.

In case of tornado:

1. We MUST go to the lowest level of the building, to the east corridor if possible.

2. Shut doors of the classrooms near you in the basement.

3. DO NOT return to class or leave the building until you have been told by staff that it is safe.

 In case of active threat:

1. Call 9-1-1 as soon as it is safe to do so.

2. Evacuate the area by a safe route if possible, or seek safe refuge.

3. If you must stay here, close the doors and windows and set up a barricade to the door and any ground level windows.

4. Do not attempt to make contact (verbal or physical) with the individual responsible for the threat unless no other option is available.

5. Keep a solid object between you and the threat at all times.

6. Plan for the worst: locate objects to use as weapons or develop a plan as a group for how to combat the attacker. But, only you, as an individual, can decide if you want to engage the attacker.

7. DO NOT open the door for anyone but the Police.

8. DO NOT approach police officers as they attempt to locate and neutralise the threat.

 Note: evacuation routes in Altgeld Hall are clearly posted in each classroom.

 Last updated August 28, 2013.