

# Math 525 - General Topology -Fall 2018

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**Instructor:** Sheng-Chi Liu

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**Time:** MWF 1:10 - 2:00 pm

**Office Hours:** MF 2:10 - 3:00 pm and by appointment

**Textbook:** *Topology* (2nd edition) by Jame Munkres.

**Additional Reference:**

*Basic Topology* by M.A. Armstrong.

*General Topology* by John Kelley.

*Introduction to topology* by T.W. Gamelin and R. E. Greene.

I will also borrow material from various sources and will not strictly follow any one text.

**Number of credits:** 3

**Prerequisites:** Math 401 and 402 or equivalent.

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**Course Description:** This course is an introduction to topology. We will cover fundamental topics with applications to modern analysis and geometry. The course will cover the following topics as time permits:

- topological spaces and continuous functions
- connected spaces and compact spaces
- Tychonoff theorem
- countability and separation axioms
- Baire spaces
- topological groups
- fundamental groups

**Grading Policy:** The components contributing to your grade in the course are weighted as follows: homework(50%), class presentation (10%), midterm exam (20%) and final exam(20%).

Your letter grade will be determined as follows:

%	Grade
[90, 100]	A
[87, 90)	A-
[83, 87)	B+
[80, 83)	B
[77, 80)	B-
[73, 77)	C+
[70, 73)	C
[67, 70)	C-
[63, 67)	D+
[60, 63)	D
[0, 60)	F

**Midterm and final exams:** The dates of these exams will be announced in class at least one week before the exams.

**Homework:** There will be regular homework assignments. It is fine for students to work together on finding solutions for these problems. However, each student must write up the solutions on his or her own.

**Learning outcomes:** Upon successful completion of this course students will be able to :

- Demonstrate knowledge and understanding of general topological spaces.
- Apply theoretical concepts in topology to the other fields, such as analysis etc.

**Absences:** Making up missed work (including exams, homework, etc) will be arranged only with prior approval or in case of illness documented by a doctor's note. If you miss a lecture, you are responsible for obtaining lecture notes from another student. You are also responsible for determining if any announcements were made.

**WSU Disability Statement:** Reasonable accommodations are available for students with a documented disability. If you have a disability and need accommodations to fully participate in this class, please either visit or call the Access Center (Washington Building 217; 509-335-3417) to schedule an appointment with an Access Advisor. All accommodations MUST be approved through the Access Center. For more information contact a Disability Specialist at 509-335-3417, Access.Center@wsu.edu or visit the website <http://accesscenter.wsu.edu>.

**Academic integrity:** Washington State University, a community dedicated to the advancement of knowledge, expects all students to behave in a manner consistent with its high standards of scholarship and conduct. Students are expected to uphold these standards both on and off campus and acknowledge the university's authority to take disciplinary action. The purpose of these standards and processes is to educate students and protect the welfare of the community. The standards of Conduct for Students can be found at <http://conduct.wsu.edu>.

**WSU Safety and Emergency:** Washington State University is committed to enhancing the

safety of the students, faculty, staff, and visitors. It is highly recommended that you review the Campus Safety Plan (<http://safetyplan.wsu.edu/>) and visit the Office of Emergency Management web site (<http://oem.wsu.edu/>) for a comprehensive listing of university policies, procedures, statistics, and information related to campus safety, emergency management, and the health and welfare of the campus community.