This is an advanced-level undergraduate course in introductory topology. A firm understanding of basic abstract mathematics (sets, relations, functions, the material in Chapter 1 of our text) and calculus is assumed. More importantly, success in the course requires the student to be comfortable with writing and reading rigorous proofs and with logical reasoning.

The course begins with an introduction to topological spaces and continuous functions. We emphasize metric spaces and, in particular, the usual topology on $\mathbb{R}^n$. The core of the course covers connectedness (Chapters 5 and 7), compactness (Chapter 6) and completeness (Chapter 8). We intend to finish the book before Term B ends. As time permits, we will choose additional topics from: homotopy, manifolds, cell complexes.

Most of the lectures in this course will be given by students. Each student is expected to carefully prepare 1-2 lectures to be delivered to the class. Preparation for this sort of presentation must be taken seriously; the presenter may consult the instructor and/or classmates to ensure a correct and informative presentation.

All students are expected to attend all lectures. A class participation grade will be given, measuring your attendance, behavior in class, questions asked and questions answered. Every student is expected to read the text before class; pop quizzes will occasionally be given to measure preparation for class.

SEMESTER SCHEDULE

Working at a pace of about one section of text per meeting, here is a rough outline of what I expect us to cover in 26 out of the 28 class meetings:

- October 25–November 8  
  Chapters 2 & 3
- November 10 – November 21  
  Chapters 4 & 5
- November 28 – December 13  
  Chapters 6, 7 & 8

WORK AND GRADES

There will be an in-class mid-term examination on Tuesday, November 22, comprising 20% of your overall grade. There will be an in-class final examination on Thursday December 15 which will constitute 30% of your grade in the course.
Six substantial homework assignments will be given. Each is worth 5% of your grade. The remaining 25% of your grade in the course will come from presentations to the class, in-class quizzes, attendance and classroom participation.

A 60% overall average is required for a passing grade in the course. Other letter grade cutoffs will be determined at the end of the term.

**ACADEMIC HONESTY**

Each student is expected to familiarize him/herself with WPI’s Academic Honesty policies which can be found at

[http://www.wpi.edu/offices/policies/honesty](http://www.wpi.edu/offices/policies/honesty)

All acts of fabrication, plagiarism, cheating, and facilitation will be prosecuted according to the university’s policy. If you are ever unsure as to whether your intended actions are considered academically honest or not, please see Professor Martin.

**STUDENTS WITH DISABILITIES**

Students with disabilities who believe that they may need accommodations in this class are encouraged to contact the Disability Services Office (DSO) as soon as possible to ensure that such accommodations are implemented in a timely fashion. The DSO is located in the Student Development and Counseling Center and the phone number is 508-831-4908, e-mail is DSO@WPI.EDU

If you are eligible for course adaptations or accommodations because of a disability (whether or not you choose to use these accommodations), or if you have medical information that I should know about, please make an appointment with me immediately to discuss these matters.

**INFORMATION ON THE WEB**

The course web page is

[http://users.wpi.edu/~martin/TEACHING/current.html](http://users.wpi.edu/~martin/TEACHING/current.html)