BASIC INFORMATION

Class
• Tue. 3:10-4:30
• Thur. 3:10-4:30
• Hegeman 308

Instructor
• Ethan Bloch
• bloch@bard.edu
• Albee 317
• 758-7266

Office hours
• Mon. 11:00-12:30
• Tue. 10:30-11:30
• Wed. 1:30-3:00

Text

Website
• http://math.bard.edu/bloch/math351.shtml (includes updated list of assignments)

WORK FOR THE COURSE

Attendance
• It is expected that students attend all classes. Bring the text to each class.

Homework
• Homework will be assigned at the end of class every Thursday, and will be due in class the following Thursday. Homework should be typed in LaTeX. Late assignments will not be accepted, except in emergency situations.

• You are encouraged to work with other students in solving the homework problems. However, for the sake of better learning, as well as honesty, please adhere to the following guidelines:

  › Write up your solutions yourself.
  › Acknowledge in writing anyone with whom you work and any assistance you receive.

• Failure to indicate collaboration or assistance will be construed as plagiarism.

Exams
• Each exam will have an in-class, closed-book part, and a take-home, open-book part.

  › Midterm Exam (in class): Tue., Mar. 19
  › Midterm Exam (due): Thur., Mar. 21
  › Final Exam (in class): Thur., May 16
  › Final Exam (due): Tue., May 21
WHAT IS MATH 351

- This course covers the fundamentals of point set topology, including topological spaces, continuous maps, homeomorphisms, compactness and connectedness. Topics from algebraic topology (e.g. the fundamental group) and geometric topology (e.g. surfaces) will be treated as time permits. The prerequisite for this course is Proofs & Fundamentals (Math 261) or the equivalent; a previous 300 level mathematics course, such as Abstract Algebra (Math 332) or Real Analysis (Math 361), is highly recommended. Some basic facts about groups will be used in the latter part of the semester.

OFFICE HOURS

- If you have any problems with the course, or any questions about the material, the assignments, the tests or anything else, please see the instructor about it. If you cannot make any of the scheduled office hours, do not hesitate make an appointment for some other time. To make an appointment, or to ask any questions, please talk to the instructor after class, or by phone or email, or just stop by his office.

GRADING

- Grades will be determined roughly 50% by the weekly assignments and 50% by the exams. Class participation is taken into account positively, especially in cases of borderline grades. Grades will be determined by work completed during the semester, except in cases of medical or personal emergency.

WRITING PROOFS

- Everyone makes honest mathematical mistakes, but there is no reason to get in your own way by writing your proofs with incomplete sentences and other grammatical mistakes, by using undefined symbols for variables, or by engaging in other forms of sloppy writing. Mathematics must be written carefully, and in proper English (or whatever language you use), no differently from any other writing.

- This course will offer many opportunities to practice the careful writing of mathematical proofs. Properly written proofs require the writer to observe the following basic points:

  - Justify each step in a proof, citing the appropriate results from the text as needed.
  - Use definitions precisely as stated.
  - Use correct grammar, including full sentences and proper punctuation.
  - Be very careful with quantifiers.
  - Strategize the outline of a proof before working out the details; the outline of a proof is always determined by what is being proved, not by what is known.
  - Distinguish between scratch work and the actual proof; scratch work can be in any order, but the actual proof always starts with what is known and deduces the desired result.
  - Proofs should stand on their own; check your proofs by reading them as if they were written by someone else.