MATH 104
DATA & DECISIONS
SPRING 2017

BASIC INFORMATION

Class
- Mon. 3:10-4:30
- Wed. 3:10-4:30
- Hegeman 204

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

Office hours
- Mon. 11:00-12:30
- Tue. 2:00-3:30 & 5:00-6:00
- Thur. 2:30-4:00
- Or by appointment

Text
- All readings for the course will be available at the class website. There is no textbook that needs to be purchased.

Website
- http://math.bard.edu/bloch/math104/ (includes readings and an updated list of assignments)

Communications
- Urgent announcements may be sent out via campus email, so make sure you either check your Bard email or have it forwarded to your email address of choice.

WORK FOR THE COURSE

Attendance
- It is expected that students attend all classes.

Homework
- Homework will be assigned at the end of every class. Turn in the homework at the start of the next class. Late assignments will not be accepted, except in genuine 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**.
    - **Acknowledge in writing any revisions of your work based upon solutions given in class**.

- Failure to indicate collaboration, assistance or sources will be construed as plagiarism.

- Your solutions should be written clearly and carefully, as described below.

Exams
- All exams will be in class, closed book.

  Exam #1: Wed., Mar. 1   **Exam #3: Mon., May 22**
  Exam #2: Wed., Apr. 12

WHAT IS MATH 104

- This course examines applications of mathematics to a number of topics related to data and decision-making. Topics will be chosen from three relevant areas of mathematics: voting systems, networks and statistics, all of which involve extracting information from various types of data. There is no particular mathematical preparation needed for this course beyond basic algebra, and a willingness to explore new ideas, construct convincing arguments and use a spreadsheet.

- The prerequisite for this course is passing Part 1 of the Mathematics Diagnostic Exam. If you are unsure whether Math 104 is an appropriate course for you, please consult with the instructor.

OFFICE HOURS

- If you have any problems with the course, or any questions about the material, the assignments, the exams or anything else, please see the instructor about it as soon as possible. If you cannot make any of the scheduled office hours, please make an appointment for some other time. To make an appointment, or to discuss anything, talk to the instructor after class, or send him an email message, or just stop by his office.

GRADING

- This course is graded **PASS/D/FAIL**. Passing (including the grade of D) or failing will be determined by the exams and homework assignments. The following is required to pass the course.

  - **Exams**: Your exams must average to a passing score or higher.
  - **Homework Assignments**: You cannot miss more than two homework assignments in each of the three parts of the course.

- Grades will be determined by work completed during the semester, except in cases of medical or personal emergency. There will be no opportunity to do extra credit work after the semester ends.

IMPORTANT ACADEMIC DATES

Wed., Feb. 8: End of Drop/Add period
Wed., Mar. 1: End of Late Drop; last day to request Pass/Fail
Mon., Mar. 20 — Fri., Mar. 24: Spring break
Mon., May 1 — Tue., May 2: Advising days (no classes)

Tue., May 2: Last day to withdraw from a class
Wed., May. 3: Senior projects due
Tue., May 23: Last day of classes

RESOURCES

Mathematics Study Room
- The Mathematics Study Room is open Sunday--Thursday, 7pm–10pm, in RKC 111.

- The Mathematics Study Room is staffed by undergraduate mathematics majors who are available to answer your questions. You can go to the study room to work on your homework, and then ask for help as needed.

Tutors
- For additional help beyond office hours and the Mathematics Study Room, you can request to meet with a tutor. Contact the instructor for information.

COMPUTERS & CALCULATORS

- For most of the course, pencil and paper will suffice.

- A calculator will be needed for some problems. Free calculator apps are available for smartphones, tablets and computers. Programmable and/or graphing calculators are not required.

- We will use the Google Sheets for spreadsheet calculations, as will be discussed in class. You will need a gmail account (for sharing Google Sheets). If your Bard email has not yet been converted to Gmail, you are encouraged to make the conversion, though any Gmail account can be used for this class.

- **Electronic devices, including cell phones, tablets and laptop computers, may not be used during class, other than as calculators or for spreadsheets.**

ACCOMMODATIONS

- Students with documented learning and/or other disabilities are entitled to receive reasonable classroom and testing accommodations. If you need accommodations, please adhere to the following guidelines:
    - **Discuss your needs with the instructor at the beginning of the semester.**
    - **Provide documentation as appropriate**.
    - **Contact the instructor at least one week prior to each exam or instance of accommodation**.

- If you need to miss a class for any reason (sports team, religious holiday, etc.), it is your responsibility to contact the instructor and find out about the material and assignments you missed.

WRITING HOMEWORK

- Everyone makes honest mathematical mistakes, but there is no reason to get in your own way by writing your homework carelessly. Mathematics must be written carefully, and legibly, no differently from any other writing.

- Please adhere to the following guidelines when writing homework assignments:

    - Write your homework assignments neatly and clearly.
    - Use correct grammar, including full sentences and proper punctuation.
    - Distinguish between scratch work and the final draft. Expect to do scratch work on separate paper prior to writing the final draft.
    - Your final draft should stand on its own; check your solutions by reading them as if they were written by someone else.
    - For each problem, write every step of your calculation or argument, and do so in a logical order from beginning to end. Numerical answers without justification, or equations on the page in random order, are not be acceptable for the final draft.
    - Use verbal explanations whenever needed. Formulas and calculations are not always sufficient.
    - Be very careful with "=" signs. You must write "=" between things that are equal, and not write "=" between things that are not equal.

- Please see the instructor if you have questions about writing -- or doing -- the homework assignments. If you are not sure if you have written a homework assignment properly, bring a draft with you to office hours.