

Interactive Mathematics

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Fall 2016

Office Hours: TBA

in Nightingale 551

Brian Hepler

Textbook: The Pit and the Pendulum, Small World, and Pollsters Dilemma. Purchase the packet at reprographics. You will need to bring the unit under investigation to class every day.

Course Goals: This course is designed to develop problem-solving skills while learning to apply mathematics to real life situations. Mathematical concepts to be studied: normal distribution and standard deviation; graphs of linear and non-linear functions; the concept of derivative; derivatives for exponential functions; e ; topics in probability; binomial distributions; central limit theorem; and polling theory.

Styles of Learning: This course will make extensive use of collaborative groups, although grading will be based on individual work. It is designed for the student who enjoys hands-on activities, social interaction, and pondering mathematical questions.

Materials: A graphing calculator is required for this course equivalent to the TI 83 or TI 84. You will need to bring this to class every day. You will need it by the second class meeting. You will also need graph paper.

Attendance: Daily attendance is required. Since emergencies may arise, students are allowed 4 absences. That is 4 absences *no matter what the reason*. Students who have more than 4 absences will see their final grade drop a full point for each additional absence. There are no makeup tests. Do not miss a test!

Help: Besides my office hours, assistance is available at the Math Tutoring Center in room 540B Nightingale. Hours to be announced.

Grading: POWs and Portfolios should be submitted on BlackBoard!

Daily Homework (due before the class after assigned)	10%
Problems of the Week (POWs) (due on time and typed)	20%
Portfolios (due on time and typed)	20%
Tests	25%
Final Exam	25%

Grading of POWs: (for an A it has to be handed in on the date due)

Each POW will have a write-up section. Your grade will be based on your responses to that section. In general, for an A, your work should reflect a week's work of effort and insights.

Grading of Portfolios:

At the end of each unit you will have to hand in a portfolio. This will include a cover letter, the details of which are in the Course Packet at the end of each unit, and all homework assigned during the unit. Since we go over the homework in class, when handed in with the portfolio all homework assignments should be correct.

Late Work:

For homework submitted late you will receive half credit, after that you will receive no credit but the assignments still must be included in the portfolio. POWs and Portfolios are due on time; they will not be accepted more than one day late. If you must print an assignment, you must hand it to me before class starts. I will be sad.

Finals:

No student will be given a request for a special final exam unless it is due to a registrar created conflict. Do not make travel plans that conflict with the final exam.

Note: It is your responsibility to be aware of any changes to this syllabus that are announced in class. Students are responsible for all information given when they are absent. If you have any concerns about the course that cannot be resolved with me please see David Massey, the teaching coordinator. It is the university policy that no grade, including an incomplete, can be changed after one year. Exceptions must be authorized by the Academic Standing Committee.

Academic Honesty: Cheating will not be tolerated. All work submitted must be your own. If you get help from another individual on the POWs or portfolios, your write-up needs to be in your own words, and you must identify who you worked with. You will be randomly called on to explain your work, so if you get help, make sure you understand it. You must show how you got the answers for any work submitted.

During exams, cell phones must be put away and you cannot share calculators.

Please refer to the university's policies on cheating and related disciplinary actions that are detailed in your Student Handbook. Incidents of cheating will be reported to the Office of Judicial Affairs, which can lead to suspension or expulsion from the university.