Professor: Joanna Jeneralczuk
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Lectures:
  Stat 240.A (TuTh 4:00 – 5:15 pm, Marcus Hall 131)
  Stat 240.B (TuTh 1:00 - 2:15 pm, Marcus Hall 131)

Discussion: Section A – every Wednesday (starting February 1)
  Section B – every Monday (starting January 30)

Office Hours: Tu/Th 11:00 – 12:30 and 2:30- 3:30 and by appointment
Office Hours for TAs: TBA

Prerequisite: Knowledge of high school algebra.

Description: This is the introductory course in statistics. It covers: descriptive statistics, basics of probability, random variables, binomial and normal distributions, Central Limit Theorem, sampling distribution of the population mean and proportion, estimation, hypothesis testing and simple linear regression (Gen.Ed.R2 and R1 requirement upon successful completion).


Computing Software: Not required, but you are welcome to experiment with MINITAB or EXCEL.

Grading: Final averages will be weighted as follows:

  Homework - 10%
  Quizzes  - 20%
  1st Exam (March, in class) - 20%
  2nd Exam (April, in class) - 20%
  Final Exam (University schedule) - 30%

Grades will be assigned according to the following scale:
A: 93-100; A-: 88-92; B+: 83-87; B: 80-82; B-: 75-79
C+: 70-74; C: 65-69; C-: 60-64; D+: 55-59; D: 51-54; F below 51.

Attendance: We will be covering a large amount of unfamiliar material in a short period of time. The course is structured so that each new section builds on the material from the previous sections. It is important, therefore, that you attend and participate in all lectures and discussion sessions, do reading assignments, and homeworks. Don't fall behind.

Discussion sections: Basic material will be covered in lectures. The discussion session will provide opportunity for review, solving additional problems and answering questions on material covered in the lectures and homeworks.
Homework:
Homework will be assigned every week and collected the following Monday (section B) or Wednesday (section A) at the start of the discussion section. The deadline is Thursday. Late homework will not be accepted.

Quizzes: Quizzes will be given during discussion sections.
Exams: All exams are closed book.

Exam Make-Up Policy:
There are no scheduled make-up exams. Make-up exams will be offered to students with legitimate conflicts or unanticipated emergencies that can be documented in advance (when possible) or after the fact. Unpreparedness or a heavy work load are not legitimate excuses for requesting a make-up exam.
The following are examples of acceptable reasons for missing an exam (note- since the exams are giving during the regular classes – there is no schedule conflict for midterm exams):

a) Official university travel

If you will be traveling for university business (e.g. athletic competition or an academic conference), then you will need to give your instructor: your full name, student ID number, your section number, email address, and official documentation supporting the absence at least two weeks in advance of the exam.

b) Medical reasons

Absence from an exam due to medical reasons can be planned or unexpected. If planned, you need to notify me at least two weeks in advance of the exam. If unexpected, you will need to contact me within a day of the missed exam. In either case, you will need to give me: your full name, student ID number, your discussion section number, email address, and documentation from a medical professional, with a telephone number where the professional can be contacted if necessary. You need not disclose any details of the reason for a medical excuse, but there must be enough information to allow the absence to be excused.

c) Religious observances

State law and University regulations require that a student be excused from academic pursuits on days of religious observance. The regulations also require the student to notify the instructor, in writing, at least two weeks before the absence or it may not be excused. The University provides a list of major observances at: http://www.umass.edu/umhome/events/religious.php
Note: When the final exam schedule comes out, if you find you have another final exam scheduled for the same time as ours, or if you have three final exams scheduled for the same day, then you should see someone in the Registrar’s Office to resolve these issues. They will compare the 5-digit Spire class numbers of the two courses to determine which is obliged to give a make-up. If the final digit(s) of the 5-digit class number for Stat 240 is higher than the final digit(s) of the 5-digit class number for the other course, you are entitled to a make-up exam in Stat 240.

Missing an exam without a legitimate excuse will result in a 15% penalty on the make-up score.

Expectations:
1. Students are expected to be on time for lectures and discussions. When this is not possible, students are expected to enter the classroom as unobtrusively as possible.
2. A student who has to leave a lecture or discussion section early should notify the instructor or TA before the start of class.
3. Common sense rules of etiquette should be observed at all times.
4. Please do not bring food or drinks into the lecture or discussion. Turn off cell phones. No headphones.

Academic Honesty:
1. All work submitted by the student is expected to be his or her own.
2. While students may collaborate on homework assignments, the final version should represent the students’ own effort and understanding.
3. Quizzes and exams will be proctored diligently to assure fairness.
4. Any violation of these policies will be addressed according to the procedures laid out in the booklet.
Course Schedule:
I plan to cover chapters 1 – 10 and part of chapter 13 from the textbook. Lecture notes will be posted before each lecture, please print and bring them to class. The handouts will show the basic topics, definitions, stated problems but details are missing. These, of course, are filled in during class.

We will cover:
1. What is statistics, types of statistics, population and sample, basic terms, types of variables (Chapter 1).
2. Organizing and Graphing Qualitative and Quantitative Data (Chapter 2).
3. Numerical Descriptive Measures for ungrouped and grouped data. (Chapter 3).
4. Bivariate Data: Bivariate data scatter-plots of for two variables, correlation coefficient, best fitting line (notes and part of Chapter 13)
5. Probability and Probability Distribution: Event, sample space, event composition, calculating probabilities, counting rules, mutually exclusive (or disjoint) events, conditional probabilities and independent events, tree diagram. (Chapter 4).
6. Discrete Random variables and their probability distributions: random variables, mean and standard deviation of a discrete random variable, factorials, combinations and permutations, binomial and hypergeometric distribution. (Chapter 5)
7. Normal Distributions: Normal probability distribution, use of standard normal distribution tables, applications of the normal distribution (Chapter 6).
8. Sampling Distributions: Random sampling, sampling plans and experimental designs, sample mean, the Central Limit Theorem, distribution of sample proportion. (Chapter 7)
9. Estimation of the mean and proportion (Chapter 8)
10. Hypothesis tests about the mean and proportion (Chapter 9)
11. Estimation and hypothesis testing – two populations (Chapter 10).

ENJOY THE COURSE! I will be watching you and guide you to success. Your success is my success!!!