STATISTICS 108: ELEMENTARY STATISTICS, Spring 2014

Professor:
Mark Rizzardi, Department of Mathematics, Humboldt State University

Contact information:
Email: rizzardi@humboldt.edu, Phone: (707) 826-4951, Office: BSS 336
Website: www.users.humboldt.edu/rizzardi

Office hours:
Up to date information on office hours can be found at: http://users.humboldt.edu/rizzardi/hours.html
Office hours will begin as: Mondays (2:00-3:50), Wednesdays (2:00-2:50) and Fridays (12:00-12:50). I am also available on a drop-in basis and by appointment.

General information:
This course will meet in the lecture room (BSS 166) Mondays, Wednesdays and Fridays (8:00-8:50) and in a computer lab (BSS 313 or SciA 364) on Tuesdays. You will be expected to attend the specific lab section that you are enrolled.

Homework will be performed online in Pearson Education’s MyStatLab (www.mystatlab.com) which you are required to purchase. MyStatLab is packaged with our text if you purchased it through the HSU bookstore. There will be labs that will require you to perform data analysis and/or simulations and write short reports which will be turned in as hardcopies. Data analysis will mostly be performed using MyStatLab’s StatCrunch.

You are considered a member of your class community and you attendance is expected to all lectures and your assigned lab. Attendance will not be taken during lectures and labs. If attendance levels become low, I may start taking attendance later in the semester with punitive measures.

Information regarding exam information, the latest homework assignments, syllabus, and handouts can be found at the course home page (www.users.humboldt.edu/rizzardi/Stat108.html). There you will also find a chart which lists days that the different book sections are covered, which material should be read before lecture, and exam dates.

Communication with the professor:
Questions about course material should initially be posted in the Moodle Homework or Lab Questions Forums. Such questions are also welcomed during office hours, but often other students in the class community will also share the same question, thus the public postings in Moodle are helpful. Questions particular to your status in the course should be emailed directly to Professor Rizzardi or during office hours.

Course Goals & Learning outcomes:
Learn skills necessary for effective basic data analysis to facilitate decision-making and increase quantitative literacy. Elementary probability and statistical concepts are emphasized to provide an understanding of the foundational ideas behind applied statistical estimation and inference. Concepts are reinforced and practiced via the use of the statistical software package StatCrunch and Java applets.

The course goals are:
1. Appreciate the importance and uses of statistics.
2. Learn how to summarize data and interpret basic statistical summaries.
3. Learn basic probability including combinatorics and probability distributions.
4. Introduction to fundamental statistical theory required to properly apply statistics.
5. Understand the ideas behind confidence intervals and hypothesis testing and learn how to apply these tools to simple data situations.
6. Recognize the necessity of proper sampling and experimental design.
7. Be able to comprehend and communicate basic statistical ideas used in academic journals.
8. Become familiar with a statistical software package which will provide the platform for learning other statistical packages that you may need to know in the future.
In addition, Statistics 108 is considered an Area B General Education course satisfying the "Mathematical Concepts" category. Upon completing this requirement, students will be able to: (1) use skills beyond the level of intermediate algebra to solve problems through quantitative reason and, (2) apply mathematical concepts and quantitative reasoning to problems. In other words, this course is more than just learning how to remember and plug numbers into equations - you are expected to think critically.

Text and software:
All students are required to purchase an access card to Pearson Education’s “MyStatLab”. In addition, students should have access to a hardcopy of the “Statistics: Informed Decision Using Data, 4th edition” text by Michael Sullivan, III. It is usually more economical to buy the text and MyStatLab as a bundled package.

Homework:
Homework is necessary to help yourself understand the course material. It is important that you put much effort into understanding the ideas behind your solution rather than just mechanically going through the steps. Furthermore, it is critical that you keep pace with the homework and do not fall behind because the concepts behind the material build upon one another.

MyStatLab (www.mystatlab.com) will be used to collect and grade homework assignments. The course ID is rizzardi06737 and will be needed to enroll in the MyStatLab component of this course. You typically get many tries to complete a homework problem up until the assignment deadline. Homework for each assignment will typically be due by 11:59 pm on the subsequent lecture day that the material was covered with the exact date displayed in MyStatLab. No late homework will be accepted.

Labs:
Throughout the course, there will be an additional homework assignment that will be labeled as a lab. In a lab you will analyze data and summarize your results. The labs will involve the use of StatCrunch and a word processing editor that can import graphs. Specific details on when they are due will be provided when each lab is assigned.

Quizzes and final exams:
Quizzes are used to assess your learning and to keep you on track. Seven quizzes will be done on the computer during lab and two paper quizzes in class. There will be no “pop” quizzes. Details about any aides allowed during the quizzes will be communicated to the class in advance of each quiz. I reserve the right to have you confirm your understanding of the work you turned in.

The final exam will be broken into two parts. One part will be done on the computer during our last lab session (May 6). The second part will be done on paper in our lecture room on the morning of Wednesday, May 14.

Athletes are expected to provide the instructor with a travel schedule at the start of their season so that exams may be given at an alternate time. Absences on exam days due to illness will require a telephone message to my office or an email before the exam. If accepted, such absences will result in my choice of reweighting other exams or a make-up exam which can possibly be of a different format and difficulty than the regular exam. Oversleeping or difficulty finding parking are not valid excuses.

Grading weights:
- Homework: 30% (lowest three homework scores are dropped)
- Lab assignments: 10% (lowest lab score is dropped)
- Computer quizzes: 25% (lowest two test scores are dropped)
- Paper quizzes: 10% (5% each)
- Final exam (part 1, May 6): 10%
- Final exam (part 2, May 14): 15%

Determining final grade:
Typically, the traditional 90%, 80%, 70% are used to decide A, B, and C grades. Plus and minuses are used for grades within 2% of a decile. If, at the end of the course, I deem those cut-offs for a grade to be too severe, I may grade on a curve by choosing a cut-off of less than 90% for an A, etc. Essentially, an A is earned when you demonstrate a strong understanding of the material, a B is earned when you demonstrate good comprehension, and a C is earned for moderate comprehension.
Academic Honesty Policy:
Students are responsible for knowing and abiding by the HSU policy regarding academic honesty. Please read www.humboldt.edu/studentrights/academic_honesty.php. You are allowed to work in small groups on homework and lab assignments, but the work you turn in must be your own work and accurately reflect your understanding of the material. I reserve the right to have you confirm your understanding of the work you turned in.

Students with Disabilities:
Persons who wish to request disability-related accommodations should contact the Student Disability Resource Center in the Learning Commons, Lower Library, 707-826-4678 (voice) or 707-826-5392 (TDD). Some accommodations may take up to several weeks to arrange. http://www.humboldt.edu/disability/

Disruptive behavior:
Students are responsible for knowing the university policy regarding disruptive behavior (http://www.humboldt.edu/studentrights/attendance_behavior.php).

Add/Drop policy:
Students are responsible for knowing the University policy, procedures, and schedule for dropping or adding classes. http://www.humboldt.edu/extended/calendar/index.html

Notice:
Details of this syllabus are subject to change with fair notice.