

STAT 200 Elementary Statistics

Section 202

June 29, 2005 – Aug 10, 2005

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|--------------------|-----------------------|--------------|------------------|
| Class: | 12:45 – 2:00 | M W F | 117 Thomas |
| | 12:45 – 2:00 | T R | 64 Willard (LAB) |
| Instructor: | Bill Harrington | TA: | Jerin Ullah |
| Office | 409 Thomas (865-6552) | Office | 301 Thomas |
| Office Hours | M/W 2:00-3:00 | Office Hours | |
| Home Phone | 234-3640 | Office Phone | 863-2314 |
| Email | wxh100@psu.edu | Email | juu101@psu.edu |

Course Material:

Textbook: Mind on Statistics Second Edition by Utts and Heckard

Calculator: Basic

Web Page: ANGEL <https://cms.psu.edu>

Course Objectives:

- Appropriately summarize data numerically and graphically
- Identify the relevant population characteristics in a problem
- Distinguish between population characteristics and sample information
- Apply techniques to make statistical inference about a population characteristic
- Identify the assumptions required for the validity of statistical inferences
- Recognize the strengths and limitations of sampling methods and study designs
- Use computer software to generate statistical information

Prerequisites:

- Completion of two years of high school algebra
- Simple logic skills
- Familiarity with the MS Windows operating system

Topics:

- Types of data
- Summarizing data
- Study types and designs
- Simple probability concepts
- Binomial distributions
- Probability distributions: the standard normal distribution
- Statistics and sampling distribution: the Central Limit Theorem
- One-sample inference: hypothesis testing and confidence intervals for a population mean and proportion
- Two-sample inference: hypothesis testing for two population means and proportions
- Paired samples
- Simple linear regression and correlation
- Chi-square test

Evaluation:

| | Points | Percent |
|---|---------------|----------------|
| Midterm (July 22) | 200 | 20% |
| Final (August 12) | 250 | 25% |
| 6 Quizzes 5 best – worth 40 points each | 200 | 20% |
| 6 Homework Assignments 5 best – worth 30 points each | 150 | 15% |
| Project – worth 100 points | 100 | 10% |
| 8 LAB Quizzes/Activities 5 best – worth 20 points each | 100 | 10% |
| Total | 1000 | 100% |

Quiz dates are provided on the Course Calendar. The quiz questions will cover the material provided in the previous classes, material provided in the sections of the text, and homework problems.

The LAB quizzes or activities will be given during each lab class.

The homework will be problems from the various sections we cover in the book each week.

The final will be comprehensive.

Grading Scale:

| | |
|-----------|-----|
| 93% | A |
| 90% | A - |
| 87% | B + |
| 83% | B |
| 80% | B - |
| 77% | C + |
| 70% | C |
| 60% | D |
| Below 60% | F |

Makeup Policy:

- Quizzes will not be made up under any circumstances.
- Homework will not be accepted past their due date unless you make other arrangements with me BEFORE the due date.
- If you must miss the Midterm or Final, see me BEFORE the date of the exam in order to set up a conflict exam time. Otherwise you will receive a zero for the missed exam.
- If you are ill on a day that a HW is due or an exam is scheduled, make sure you let me know via email THAT DAY. If you do not have access to email, call me at home (234-3640). Upon returning to class, you will need to show me a note from a doctor documenting your illness.

Academic Honesty:

Academic dishonesty is not limited to simply cheating on an exam or assignment. The following is quoted directly from the "PSU Faculty Senate Policies for Students" regarding academic integrity and academic dishonesty: "Academic integrity is the pursuit of scholarly activity free from fraud and deception and is an educational objective of this institution. Academic dishonesty includes, but is not limited to, cheating, plagiarizing, fabricating of information or citations, facilitating acts of academic dishonesty by others, having unauthorized possession of examinations, submitting work of another person or work previously used without informing the instructor, or tampering with the academic work of other students." All University and Eberly College of Science policies regarding academic integrity/academic dishonesty apply to this course and the students enrolled in this course. Refer to the following URL for further details on the academic integrity policies of the Eberly College of Science:

<http://www.science.psu.edu/academic/Integrity/index.html>. Each student in this course is expected to work entirely on her/his own while taking any exam, to complete assignments on her/his own effort, and to abide by University and Eberly College of Science policies about academic integrity and academic dishonesty. Academic dishonesty can result in assignment of "F" by the course instructors or "XF" by Judicial Affairs as the final grade for the student.