

Statistics 104 – Section A

Fall 2008

- Instructor:** Dr. Bob Stephenson
- Contact:** Phone: (515) 294-7805 email: wrstephe@iastate.edu
 section website: <http://www.public.iastate.edu/~wrstephe/stat104.html>
- Office Hours:** MTWTh 9:00 – 9:50 am, in 1127 HNSB
 M 1:10 – 2:00 pm, in 1407 Wilson
 or by appointment
- Lecture:** TTh 8:00 – 8:50 am, Molecular Biology 1420
- Laboratory:** F 8:00 – 9:50 am, Lagomarcino W 0272
- Required Text:** *Just the Essentials of Elementary Statistics*, 10th Edition, Robert Johnson & Patricia Kuby, Thomson: Brooks/Cole.
- Objectives:** The objectives of the course are to have students develop an understanding of statistical thinking. By the end of the course students should be able to display and summarize data, evaluate probabilities, and use statistical methods to reach informed decisions about questions arising from real world problems especially those in the agricultural and biological sciences.

Syllabus:

	Tentative Dates	Material	Text
T	Aug 26 – Th Aug 28	What is statistics? Sampling studies	Chapter 1
T	Sept 2	Experiments	Notes
Th	Sept 4 – Th Sept 11	Single variable data	Chapter 2
T	Sept 16 – Th Sept 25	Bivariate data	Chapter 3
T	Sept 30 – Th Oct 2	Probability	Chapter 4
EXAM 1 – Friday, October 3			Chapters 1 – 3
T	Oct 7 – Th Oct 9	Discrete random variables, Binomial	Chapter 5
T	Oct 14 – T Oct 21	Normal distribution	Chapter 6
Th	Oct 23 – Th Oct 30	Sampling distributions	Chapters 7
T	Nov 4 – Th Nov 6	Estimation	Chapter 8 (Sects 1 – 3)
EXAM 2 – Friday, November 7			Chapters 4 – 7
T	Nov 11 – Th Nov 13	Testing	Chapter 8 (Sects 4 – 5)
T	Nov 18 – Th Nov 20	Inference for a single proportion	Chapter 9 (Sect 3)
M	Nov 24 – F Nov 28	Thanksgiving Break	
T	Dec 2 – Th Dec 4	Inference for a single mean	Chapter 9 (Sect 1, 2) Chapter 10 (Sect 2, 3)
T	Dec 9 – Th Dec 11	Inference for two means	Chapter 10 (Sect 1, 4)

FINAL EXAM Tentatively scheduled for Friday, December 19 from 7:30 to 9:30 am

Course Information and Policies

- **Disability:** Iowa State University complies with the Americans with Disabilities Act and Sect 504 of the Rehabilitation Act. If you have a disability and anticipate needing accommodations in this course, please contact Dr. Bob Stephenson, 1407 Wilson Hall, 294-7805, wrstephe@iastate.edu, within the first two weeks of the semester. Retroactive requests for accommodations will not be honored. Before meeting with Dr. Stephenson, you will need to obtain a SAAR form with recommendations for accommodations from the Disability Resources Office, located in Room 1076 on the main floor of the Student Services Building. Their telephone number is 515-294-6624.
- **Academic Dishonesty:** This class will follow Iowa State University policy on academic dishonesty found in the Iowa State University Catalog. A score of zero will be given for the entire assignment in which the academic dishonesty occurred.
- **Exams:** In class exams will be given during the lab period. You will be able to use a calculator during exams. Formulas and tables needed for the exams will be provided.
- **Final Exam:** The final exam is **tentatively** scheduled for Friday, December 19th from 7:30 to 9:30 am. **Do not make plans for semester break before you know the complete final exam schedule.**
- **Lab:** There is a weekly two-hour laboratory scheduled for each section. Labs provide the opportunity to actively experience statistical ideas discussed in lecture. Attendance at the lab is mandatory. In addition to doing the laboratory activities you can get help from the course instructor during lab. Bring your book, class notes and a calculator to the lab.
- **Homework:** Individual practice is an important part of learning. For this reason homework problems will be assigned throughout the semester. Homework assignments are due at the end of the lecture period on the due date. **Late homework assignments will not be accepted.** Homework will be evaluated in two ways. You will receive one point for each problem completed. One, or more, problems will be selected at random and evaluated more thoroughly, with points awarded for correct solutions. At the end of the semester, the homework portion of the grade will be scaled to allow you to miss up to 10% of the total number of homework points possible without penalty.
- **Quizzes:** Be prepared to take a short quiz at any time during class or lab. Quizzes will not be announced, so you are encouraged to attend class on a regular basis. Quizzes will be based on information presented in class, on labs and homework. Make-up quizzes will not be given **under any circumstances**. The quiz portion of your grade will be scaled at the end of the semester to allow you to miss up to 15% of the quiz points possible without penalty.
- **Computing:** Some labs/homeworks will incorporate work on the computer using the statistical analysis package JMP. Detailed instructions will be provided with all computer assignments. Help with JMP is available in 0113 Pearson at the times posted. Be sure to allow enough time to complete the JMP assignments. It is your responsibility to allow for computer failures and/or difficulty finding a computer with the JMP software. JMP software can be downloaded to your personal computer for free. If you have questions about how to do this, go to the Solutions Center in Durham.
- **Project:** A project will be assigned during the semester. This project is intended to expose students to the collection and statistical analysis of data to solve real world problems. Students will work in groups. Specific details will be given later in the semester.
- **Grading:** Letter grades including plus/minus will be given based on performance on exams, labs, homework and the project. The percentage distribution is as follows:

Exam 1	20%
Exam 2	20%
Final Exam	30%
Homework/Lab	10%
Quizzes	10%
Project	10%