

Statistics 101 – Sections A & B

Spring 2010

Instructor: Dr. Bob Stephenson
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 Course website: <http://streaming.stat.iastate.edu/~stat101/homepage.html>
 Section website: <http://www.public.iastate.edu/~wrstephe/stat101.html>
Office Hours: M T W Th F 10:00 – 10:50 am, or by appointment (email me to make an appointment)
Lecture: MWF 9:00 – 9:50 pm, Physics 0003
Laboratory: Section A: M 12:10 – 2:00 pm, 3105 Snedecor
 Section B: M 2:10 – 4:00 pm, 3105 Snedecor
Required Text: *Intro Stats*, 3rd Edition, Richard D. DeVeaux & Paul F. Velleman, Addison Wesley
Objectives: The objectives of the course are to help students develop an understanding of statistical thinking and to enable students to apply basic statistical techniques. By the end of the course students should be informed and critical consumers of quantitative arguments.

Syllabus:

Tentative Dates		Material	Text
M	Jan 11	Stats Starts Here	Chapter 1
W	Jan 13	Data	Chapter 2
F	Jan 15	Categorical Data	Chapter 3
M	Jan 18	NO CLASS – M. L. King, Holiday	
W	Jan 20	- M Jan 25	Quantitative Data Chapter 4
W	Jan 27		Comparing Distributions Chapter 5
F	Jan 29	- W Feb 3	The Standard Deviation as a Ruler and The Normal Model Chapter 6
		EXAM 1 – Friday, February 5	Chapters 1 - 6
M	Feb 8	- W Feb 10	Scatterplots, Association, Correlation Chapter 7
F	Feb 12	W Feb 17	Linear Regression Chapter 8
F	Feb 19		Regression Wisdom Chapter 9
M	Feb 22		Understanding Randomness Chapter 11
W	Feb 24		Sample Surveys Chapter 12
F	Feb 26	- M Mar 1	Experiments Chapter 13
W	Mar 3		From Randomness to Probability Chapter 14
		EXAM 2 – Friday, March 5	Chapters 7 – 13
M	Mar 8	- W Mar 10	Sampling Distribution Models - proportions Chapter 18I
M	Mar 15	- F Mar 19	Spring Break
M	Mar 22	- F Mar 26	Confidence Intervals for Proportions Chapter 19
M	Mar 29	- W Apr 7	Testing Hypotheses about Proportions, More About Tests Chapters 20 & 21
		Exam 3 – Friday, April 9	Chapters 18I - 21
M	Apr 12	- W Apr 14	Sampling Distribution Models - means Chapter 18II
F	Apr 16	- W Apr 21	Inferences About Means Chapter 23
F	Apr 23	- M Apr 26	Comparing Means Chapter 24
W	Apr 28	- F Apr 30	Paired Samples and Blocks Chapter 25
		FINAL EXAM – Tentatively scheduled for Wednesday, May 5, 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, 3111 Snedecor 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 515-294-7220.
- **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 on which the academic dishonesty occurred.
- **Exams:** The first three exams will be given during regular class time. Individual make-up exams are not given in Statistics 101. A comprehensive make-up exam (covering all the material on Exams 1, 2 and 3) will be offered to any student missing one or more exams during the semester. This comprehensive make-up exam will be given during the last week of classes (April 26 - 30).
- **Final Exam:** The final exam is **tentatively** scheduled for Wednesday, May 5th from 7:30 to 9:30 am. **Do not make plans for semester break that conflict with your final exam schedule.**
- **Lab:** There is a mandatory weekly two-hour laboratory scheduled for each section. Labs provide the opportunity to actively experience statistical ideas discussed in lecture. Bring your book, class notes and a calculator to the lab. There is **no lab** the first week of the semester.
- **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. 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 without penalty. Solutions to the homework problems will be posted on the course and section websites.
- **Quizzes:** Be prepared to take a short quiz at any time during lecture. Quizzes will not be announced, so you are encouraged to attend class on a regular basis. 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 without penalty.
- **Computing:** Some labs and homework assignments will require using the statistical analysis package JMP. Detailed instructions will be provided with all computer assignments. Help with JMP is available in 1207 Snedecor 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.
- **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	70 pts
Exam 2	70 pts
Exam 3	70 pts
Final Exam	120 pts
Homework	60 pts
Labs	30 pts
Quizzes	30 pts
Project	50 pts
Total	500 pts