

Statistics 101 – Sections A & B

Spring 2007

Instructor: W. Robert 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: MWF 10:00 to 10:50; MT 1:10 to 2:00 or by appointment
Lecture: MWF 9:00 to 9:50 W0142 Lagomarcino
Laboratory: Section A: M 2:10 to 4:00 in 319 Snedecor
 Section B: M 4:10 to 6:00 in 296 Town
Required Text: *Intro Stats*, 2nd 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 and producers of quantitative arguments.

Syllabus:

	Tentative Dates		Material	Text
M	Jan 8		Stats Starts Here, Data	Chapters 1 & 2
W	Jan 10		Displaying Qualitative Data	Chapter 3
F	Jan 12	- W Jan 17	Displaying Quantitative Data	Chapter 4
M	Jan 15		NO CLASS – Martin Luther King Day	
W	Jan 17	- M Jan 22	Describing Distributions Numerically	Chapter 5
W	Jan 24	- W Jan 31	The Standard Deviation as a Ruler and The Normal Model	Chapter 6
F	Feb 2	- M Feb 5	Scatterplots, Association, Correlation	Chapter 7
W	Feb 7		Linear Regression, Regression Wisdom	Chapters 8 & 9
			EXAM 1 – Friday, February 9	Chapters 1 - 6
M	Feb 12	- W Feb 14	Linear Regression, Regression Wisdom	Chapters 8 & 9
F	Feb 16		Understanding Randomness	Chapter 11
M	Feb 19		Sample Surveys	Chapter 12
W	Feb 21	- F Feb 23	Experiments	Chapter 13
M	Feb 26		From Randomness to Probability	Chapter 14
W	Feb 28		Sampling Distribution Models	Chapter 18I
			EXAM 2 – Friday, March 2	Chapters 7 – 9, 11 – 14
M	Mar 5	- W Mar 7	Sampling Distribution Models	Chapter 18I
F	Mar 9		Confidence Intervals for Proportions	Chapter 19
M	Mar 12	- F Mar 16	Spring Break	
M	Mar 19	- W Mar 21	Confidence Intervals for Proportions	Chapter 19
F	Mar 23	- F Mar 30	Testing Hypotheses about Proportions, More About Tests	Chapters 20 & 21
M	Apr 2	- W Apr 4	Sampling Distribution Models	Chapter 18II
			Exam 3 – Friday, April 6	Chapters 18I - 21
M	Apr 9	- F Apr 13	Inferences About Means	Chapter 23
M	Apr 16	- W Apr 18	Comparing Means	Chapter 24
F	Apr 20		Paired Samples and Blocks	Chapter 25
M	Apr 23	- F Apr 27	Comparing Counts	Chapter 26

FINAL EXAM
Week of April 30 – May 4

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, 327 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 515-294-6624.
- **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:** 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 the semester.
- **Final Exam:** The final exam is **tentatively** scheduled for Monday, April 30 from 7:30 to 9:30 am. **Do not make plans for semester break before you know your 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 your assigned lab is mandatory. In addition to doing the laboratory activities you can get help from the lab instructor and/or course instructor. 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 possible without penalty. Solutions to the homework problems will be posted on the course website.
- **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. 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 two quizzes 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 307 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, for more information, go to <https://www.sitelicensed.iastate.edu/>. 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	15.0%
Exam 2	15.0%
Exam 3	15.0%
Final Exam	22.5%
Labs/Homework	15.0%
Quizzes	7.5%
Project	10.0%