# Statistics 101 – Sections G & H Spring 2015

**Instructor:** Evan "Pete" Walsh

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Course Info: Blackboard, epwalsh.public.iastate.edu/Stat101

**Office Hours:** Stat 101 help room schedule/office hours will be posted in Blackboard

Lecture: MWF, 3:10-4 PM, Lagomar E164
Laboratory: Section G: TH 2-6, 3105 Snedecor Hall
Section H: TH 4-6, 3105 Snedecor Hall

**Requirements:** Intro Stats, 4<sup>rd</sup> Edition, Richard D. DeVeaux, Paul F. Velleman, & David E. Bock, 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.

## **Important Dates:**

• Monday, January 19: Martin Luther King Day Holiday, NO CLASS

• Monday, February 9 through Friday, February 13: Unit 1 Quiz Available

• Monday, March 2 through Friday, March 6: Unit 2 Quiz Available, NO LAB

• Monday, March 9: MIDTERM EXAM (covers Chapters 1 through 8)

Monday, March 16 through Friday, March 20: SPRING BREAK, NO CLASS

• Monday, March 23 through Friday, March 27: Unit 3 Quiz Available

Monday, April 13 through Friday, April 17: Unit 4 Quiz Available, NO LAB

• Monday, May 4 through Friday, May 8: FINAL EXAM WEEK

○ (Online) Unit 5 Quiz: During Week of May 4 – 8

 $\circ$  (Written) Final Exam: During Week of May 4 – 8 according to final exam schedule (covers Chapters 15 through 21)

## **Reading Assignments:**

	Tent	tative l	Dates		Material	Text
M	Jan 12				Stats Starts Here	Chapter 1
W	Jan 14	-	F	Jan 16	Displaying and Describing Categorical Data	Chapter 2
W	Jan 21	-	M	Jan 26	Displaying and Summarizing Quantitative Data	Chapter 3
W	Jan 28	-	F	Jan 30	Understanding and Comparing Distributions	Chapter 4
M	Feb 2	-	F	Feb 6	The Standard Deviation as a Ruler and The Normal Model	Chapter 5
M	Feb 9	-	W	Feb 11	Scatterplots, Association, Correlation	Chapter 6
F	Feb 13	-	F	Feb 20	Linear Regression, Regression Wisdom	Chapters 7 & 8
M	Feb 23				Understanding Randomness	Chapter 9
		_	F	Feb 27	_	Chapter 10
		_			-	Chapter 11
F	Mar 6			1,141	From Randomness to Probability	Chapter 12
W	Mar 11	_	M	Mar 23	Sampling Distribution Models	Chapter 15I
W	Mar 25	_	M	Mar 30	Confidence Intervals for Proportions	Chapter 16
W	Apr 1	-	M	Apr 6	Testing Hypotheses about Proportions	Chapter 17
W	Apr 8	_	F	Δnr 10	Sampling Distribution Models	Chapter 15II
		-			1 6	Chapter 18
		-	1	Apr 17		Chapter 19
	-	_	М	Δpr 27		Chapter 20
		_				Chapter 21
	W W W M M F M W M F	M Jan 12 W Jan 14 W Jan 21 W Jan 28 M Feb 2 M Feb 9 F Feb 13 M Feb 23 W Feb 25 M Mar 2 F Mar 6 W Mar 11 W Mar 25 W Apr 1 W Apr 8 M Apr 13 M Apr 20 W Apr 22	M Jan 12 W Jan 14 W Jan 21 W Jan 28 - W Jan 28 - M Feb 2 - M Feb 9 F Feb 13 - M Feb 25 M Mar 2 F Mar 6 - W Mar 11 W Mar 25 W Apr 1 - W Apr 8 M Apr 13 M Apr 20 W Apr 22 -	W Jan 14 - F W Jan 21 - M W Jan 28 - F  M Feb 2 - F  M Feb 9 - W F Feb 13 - F  M Feb 23 W Feb 25 - F M Mar 2 - W F Mar 6  W Mar 11 - M W Mar 25 - M W Apr 1 - M  W Apr 1 - M  W Apr 1 - M  W Apr 20 W Apr 22 - M	M Jan 12 W Jan 14 - F Jan 16 W Jan 21 - M Jan 26 W Jan 28 - F Jan 30  M Feb 2 - F Feb 6  M Feb 9 - W Feb 11 F Feb 13 - F Feb 20  M Feb 23 W Feb 25 - F Feb 27 M Mar 2 - W Mar 4 F Mar 6  W Mar 11 - M Mar 23 W Mar 25 - M Mar 30 W Apr 1 - M Apr 6	M Jan 12 W Jan 14 - F Jan 16 Displaying and Describing Categorical Data W Jan 21 - M Jan 26 Displaying and Summarizing Quantitative Data W Jan 28 - F Jan 30 Understanding and Comparing Distributions  M Feb 2 - F Feb 6 The Standard Deviation as a Ruler and The Normal Model M Feb 9 - W Feb 11 Scatterplots, Association, Correlation F Feb 13 - F Feb 20 Linear Regression, Regression Wisdom  M Feb 23 Understanding Randomness W Feb 25 - F Feb 27 Sample Surveys M Mar 2 - W Mar 4 Experiments F Mar 6 Experiments From Randomness to Probability  W Mar 11 - M Mar 23 Sampling Distribution Models W Mar 25 - M Mar 30 Confidence Intervals for Proportions W Apr 1 - M Apr 6 Testing Hypotheses about Proportions  W Apr 8 - F Apr 10 Sampling Distribution Models M Apr 13 - F Apr 17 Inferences About Means M Apr 20 W Apr 22 - M Apr 27 Comparing Groups

## **Homework Due Dates:**

Below are the due dates for homework this semester. These due dates are also listed in Blackboard. All chapters have online homework assignments, but several chapters do not have written homework assignments. These are denoted by NA in the table below.

Chapter	Online Homework (by 8am)	Written Homework (at the beginning of lecture)
1	Friday, January 23	NA
2	Friday, January 23	Friday, January 23
3	Friday, January 30	Friday, January 30
4	Friday, February 6	Friday, February 6
5	Friday, February 13	Friday, February 13
6	Friday, February 20	Friday, February 20
7 & 8	Friday, February 27	Friday, February 27
9	Friday, March 6	NA
10	Friday, March 6	NA
11	Friday, March 13	NA
12	Friday, March 13	NA
15I	Friday, March 27	Friday, March 27
16	Friday, April 3	Friday, April 3
17	Friday, April 10	Friday, April 10
15II	Friday, April 17	NA
18	Friday, April 24	Friday, April 24
19	Friday, April 24	NA
20	Friday, May 1	Friday, May 1
21	Friday, May 1	NA

### **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 the course coordinator, Dr. Ziegler, by email at <a href="mailto:liziegler@iastate.edu">liziegler@iastate.edu</a>, to set up a meeting within the first two weeks of the semester. **Accommodations requested within one week of a scheduled exam will not be honored.** Before meeting with Dr. Ziegler, you will need to obtain a SAAR form with recommendations for accommodations from the Disability Resources Office, located in Room 1076 Student Services Building. Their telephone number is 515-294-7220. **Retroactive requests for accommodations will not be honored.**
- 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. If a pattern of academic dishonesty is found to have occurred, a grade of F for the entire course can be given.
- Harassment and Discrimination: Iowa State University strives to maintain our campus as a place of work and study for faculty, staff, and students that is free of all forms of prohibited discrimination and harassment based upon race, ethnicity, sex (including sexual assault), pregnancy, color, religion, national origin, physical or mental disability, age, marital status, sexual orientation, gender identity, genetic information, or status as a U.S. veteran. Any student who has concerns about such behavior should contact his/her instructor, Student Assistance at 515-294-1020 or email dsosas@iastate.edu, or the Office of Equal Opportunity and Compliance at 515-294-7612.
- Religious Accommodation: If an academic or work requirement conflicts with your religious practices and/or
  observances, you may request reasonable accommodations. Your request must be in writing, and your instructor or
  supervisor will review the request. You or your instructor may also seek assistance from the Dean of Students Office or
  the Office of Equal Opportunity and Compliance.
- **Contact Information:** If you are experiencing, or have experienced, a problem with any of the above issues, email <u>academicissues@iastate.edu</u>.

- Absences Due to School Activities: If you are involved in athletics or a school sponsored activity and anticipate any absences from class during the semester, please inform me as soon as possible. You will need to obtain a letter from the athletic department or the faculty sponsor of your activity with a list of absences with dates and times. All absences must be arranged in advance in order to receive excused grades or to be able to make-up assignments.
- Computing: Some labs/assignments will incorporate work on the computer using the statistical analysis package JMP. 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. While not a requirement for the course, JMP software can be downloaded to your personal computer for free if you desire. Please see Blackboard for more details about downloading and using JMP in Statistics 101.
- Calculator: A basic calculator is required for the class. Any device with an internet connection (cellphone, smartphone, iPod touch, etc.) does not count as a calculator. Calculators may not be shared during exams. The most complicated function the calculator must perform is the square root. It is recommended that you bring your calculator to class so that you can follow along with example calculations.

## Assessments:

- Labs: 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. Make-up labs are not given under any circumstances. If you miss the lab, you miss the points. Students whose absences are due to school activities will receive excused grades for the missing labs at the end of the semester. At the end of the semester, one lab score will be dropped from the lab grade for the course. A copy of each week's lab will be posted to Blackboard.
- Course Learning Outcomes and Vocabulary: Student learning outcomes for each chapter covered in the textbook are posted in Blackboard. These outcomes form the structure of all course assessments. To assist you in learning the language of statistics, vocabulary words for each chapter are also listed. You will create personal glossaries for each chapter during labs to use to assist you in acquiring the language of statistics. These personal glossaries will count towards your lab grades.
- Online Homework: Practicing what you have learned is an important part of the learning process. Online homework assessments will be given through Blackboard for each chapter in the course syllabus. You will have one attempt at each online assessment. The assessments are not timed, and you can save your assessment and return to it at any time before submission. Assessments must be submitted by 8am on the due date. Due dates are given in Blackboard and the course syllabus and will not be extended for any reason. After the due date, correct answers with feedback will be available for the assessment through Blackboard if you completed the assessment. You will not be able to see the questions if you did not start the assignment. At the end of the semester, the total number of points will be scaled to allow you to miss up to 5% of the possible online homework points without affecting your grade. For more information, see the Online Homework Guidelines in Blackboard.
- Written Homework: Not everything you learn in Stat 101 can be assessed with online questions, so a short written homework assignment will be assigned for almost every chapter in the course syllabus. These assignments will be posted in Blackboard and must be printed out, completed, and handed in. The assignments will be due at the beginning of lecture on the due date. No late homework will be accepted. Solutions will be posted in Blackboard at 5pm on the due date. Written homework assignments are graded and returned to you in lecture. At the end of the semester, the total number of points will be scaled to allow you to miss up to 5% of the possible written homework points without affecting your grade. For more information, see the Written Homework Guidelines in Blackboard.
- Lecture Quizzes and Attendance: Be prepared to take a short quiz at any time during lecture or sign an attendance sheet. Quizzes and attendance days will not be announced, so you must attend class on a regular basis. Make-up quizzes and attendance will not be given under any circumstances. If you miss class, you miss the points. Students whose absences are due to school activities will receive excused grades for the missing quizzes at the end of the semester. At the end of the semester, your two lowest quiz or attendance scores will be dropped from the lecture quizzes and attendance grade for the course.

- Unit Quizzes: An online assessment for each of the five units in Stat 101 will be given during the semester in the EOL Testing Centers, 2552 Gilman Hall or 60 Carver Hall, on the available dates noted on the first page of the course syllabus. You will have one attempt at the assessment during the available dates. Make-up quizzes will not be given, so make sure to take the quiz early in the availability window. The Unit 5 Quiz is considered to be part of the final exam and will be available in the testing centers during final exam week (May 4 8). It is possible that the Testing Center will assign a specific day during finals week to take the Unit 5 Quiz, so do not make plans to leave campus for break before May 8<sup>th</sup>. For more information, see the Unit Quizzes Guidelines in Blackboard.
- **Midterm Exam:** The midterm exam in Stat 101 is scheduled for Monday, March 9 during regular lecture time and covers Chapters 1 through 8. Absences from the midterm exam due to school activities must be submitted to me by the end of the day on Wednesday, March 4. Requests for a make-up exam due to an emergency (student illness or death in the family) should be submitted me as soon as possible given the circumstances. For students with approved absences from the midterm exam, a common make-up exam will be given on Thursday, March 12 from 6:00 6:55pm in room 3105 Snedecor Hall. For more information, see the **Midterm Exam Guidelines** in Blackboard.
- **Dead Week:** The last week of classes each semester is denoted as Dead Week. This semester, Dead Week is from Monday, April 27 through Friday, May 1. As part of the updated policy on Dead Week, the course syllabus must list all graded assignments due during Dead Week. These assignments are:
  - Lab Assignment there will be a lab assignment during your regularly scheduled lab.
  - Ch 20 Online and Written HW Due Friday, May 1
  - Ch 21 Online HW Due Friday, May 1 (counts as extra credit toward online homework)
- **Final Exam:** The final exam time will be posted soon on Blackboard and the course webpage. The final exam is **one hour and covers Chapters 15 through 21**. Only students who have three exams in one calendar day where Stat 101 is the smallest of the three classes are eligible for a make-up final exam. All other students must take the final exam at the regularly scheduled day and time. All requests for make-up final exams must be submitted to me by the end of the day on Friday, April 24<sup>th</sup>. **Do not make plans to leave campus for break before May 8<sup>th</sup>**. For more information, see the **Final Exam Guidelines** in Blackboard.
- **Grading:** Letter grades including plus/minus will be given based on performance on the assessment categories above. The percentage distribution is as follows:

Five Unit Quizzes	7% each	Labs*	8%
Midterm Exam	16%	Online Homework**	10%
Final Exam	16%	Written Homework**	10%
		Lecture Quizzes/Attendance***	5%

<sup>\*</sup> Total points in this category are scaled at the end of the semester to allow you to miss up to one lab, without penalty, with a maximum score of 100%.

• Letter Grades: Grades will be assigned as follows: If your course grade is 90% or higher, you will receive at least an A-. If your course grade is between 80% and 89%, you will receive at least a B-. If your course grade is between 70% and 79%, you will receive at least a C-. If your course grade is between 60% and 69%, you will receive at least a D-.

<sup>\*\*</sup> Total points in each of these categories will be scaled at the end of the semester to allow you to miss up to 5% of the total points available in the category, without penalty, with a maximum score of 100%.

<sup>\*\*\*</sup> Total points in this category are scaled at the end of the semester to allow you to miss up to two lecture quizzes or attendance scores, without penalty, with a maximum score of 100%.