

## Syllabus for Math 15: Intermediate Statistics – Eureka Campus

<b>Semester &amp; Year</b>	Fall 2016	
<b>Course ID and Section #</b>	Math 15 E0314	
<b>Instructor's Name</b>	Levi Gill	
<b>Day/Time</b>	MWF 2:50-4:05	
<b>Location</b>	LRC 105	
<b>Number of Credits/Units</b>	4	
<b>Contact Information</b>	<i>Office location</i>	SC 216G
	<i>Office hours</i>	MTWTh 12-1
	<i>Phone number</i>	707-476-4351
	<i>Email address</i>	levi-gill@redwoods.edu
<b>Textbook Information</b>	<i>Title &amp; Edition</i>	<i>Interactive Statistics, 3rd ed.</i>
	<i>Author</i>	Martha Aliaga & Brenda Gunderson
	<i>ISBN</i>	0-13-149756-1
<b>Course Description</b>		
<p>The study of statistical methods as applied to descriptive statistics and inferential statistics. An emphasis on the meaning and use of statistical significance will be central to the course. Students will use probability techniques to make decisions via hypothesis testing and will estimate parameters using confidence intervals. Topics include descriptive statistics; probability and sampling distributions; statistical inference; correlation and linear regression; analysis of variance, chi-square and t-tests; and application of technology for statistical analysis including the interpretation of the relevance of the statistical findings. The course includes applications using data from disciplines including business, social sciences, psychology, life science, health science, and education.</p>		
<b>Student Learning Outcomes</b>		
<ul style="list-style-type: none"> <li>• Accurately communicate statistical ideas using correct statistical notation, graphs, and vocabulary.</li> <li>• Use descriptive and inferential statistics to solve real-world problems.</li> <li>• Demonstrate appropriate use of technology in making decisions based upon real-world data.</li> <li>• Read and interpret information that contains statistical analysis and be able to communicate these results.</li> <li>• Judge the validity of research reported in the mass media and peer reviewed journals.</li> </ul>		
<b>Special Accommodations</b>		
<p>College of the Redwoods complies with the Americans with Disabilities Act in making reasonable accommodations for qualified students with disabilities. Please present your written accommodation request at least one week before the first test so that necessary arrangements can be made. No last-minute arrangements or post-test adjustments will be made. If you have a disability or believe you might benefit from disability related services and may need accommodations, please see me or contact <a href="#">Disabled Students Programs and Services</a>. Students may make requests for alternative media by contacting DSPS at 707-476-4280.</p>		
<b>Academic Support</b>		
<p>Academic support is available at <a href="#">Counseling and Advising</a> and includes academic advising and</p>		

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educational planning, [Academic Support Center](#) for tutoring and proctored tests, and [Extended Opportunity Programs & Services](#), for eligible students, with advising, assistance, tutoring, and more.

### Academic Honesty

In the academic community, the high value placed on truth implies a corresponding intolerance of scholastic dishonesty. In cases involving academic dishonesty, determination of the grade and of the student's status in the course is left primarily to the discretion of the faculty member. In such cases, where the instructor determines that a student has demonstrated academic dishonesty, the student may receive a failing grade for the assignment and/or exam and may be reported to the Chief Student Services Officer or designee. The Student Code of Conduct (AP 5500) is available on the College of the Redwoods website at: <http://www.redwoods.edu/board/Board-Policies/Chapter-5-Student-Services>, and scroll to AP 5500. Additional information about the rights and responsibilities of students, Board policies, and administrative procedures is located in the college catalog and on the College of the Redwoods website.

### Disruptive Classroom Behavior

Student behavior or speech that disrupts the instructional setting will not be tolerated. Disruptive conduct may include, but is not limited to: unwarranted interruptions; failure to adhere to instructor's directions; vulgar or obscene language; slurs or other forms of intimidation; and physically or verbally abusive behavior. In such cases where the instructor determines that a student has disrupted the educational process a disruptive student may be temporarily removed from class. In addition, he or she may be reported to the Chief Student Services Officer or designee. The Student Code of Conduct (AP 5500) is available on the College of the Redwoods website at: <http://www.redwoods.edu/board/Board-Policies/Chapter-5-Student-Services> and scroll to AP 5500.

Additional information about the rights and responsibilities of students, Board policies, and administrative procedures is located in the college catalog and on the College of the Redwoods website.

### Emergency Procedures for the Eureka campus:

Please review the campus evacuation sites, including the closest site to this classroom (posted by the exit of each room). The Eureka **campus emergency map** is available at:

(<http://www.redwoods.edu/aboutcr/Eureka-Map>; choose the evacuation map option). For more information on Public Safety, go to <http://www.redwoods.edu/publicsafety>. In an emergency that requires an evacuation of the building:

- Be aware of all marked exits from your area and building.
- Once outside, move to the nearest evacuation point outside your building:
- Keep streets and walkways clear for emergency vehicles and personnel.
- Do not leave campus, unless it has been deemed safe by the Incident Commander or campus authorities. (CR's lower parking lot and Tompkins Hill Rd are within the Tsunami Zone.)

**RAVE** – College of the Redwoods has implemented an emergency alert system. In the event of an emergency on campus you can receive an alert through your personal email and/or phones at your home, office, and cell. Registration is necessary in order to receive emergency alerts. Please go to <https://www.GetRave.com/login/Redwoods> and use the "Register" button on the top right portion of the registration page to create an account. During the registration process you can elect to add additional information, such as office phone, home phone, cell phone, and personal email. Please use your CR email address as your primary Registration Email. Your CR email address ends with "redwoods.edu." Please contact Public Safety at 707-476-4112 or [security@redwoods.edu](mailto:security@redwoods.edu) if you have any questions.

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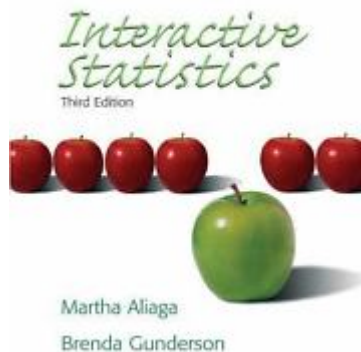
*College of the Redwoods is committed to equal opportunity in employment, admission to the college, and in the conduct of all of its programs and activities.*

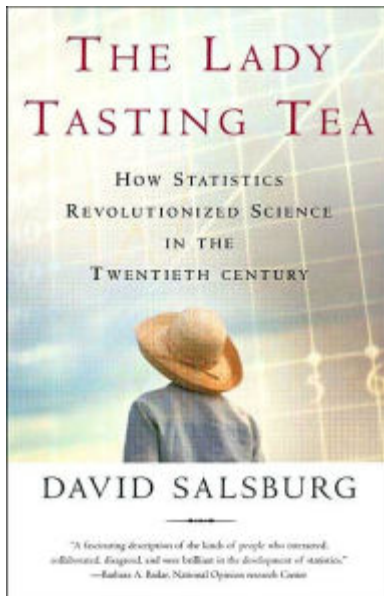
**Textbooks:**

*Interactive Statistics*, 3rd ed., Martha Aliaga & Brenda Gunderson.

ISBN: 0-13-149756-1.

(Be aware that there is a "Redwoods Edition" of that is not an acceptable substitute for the current course textbook.)



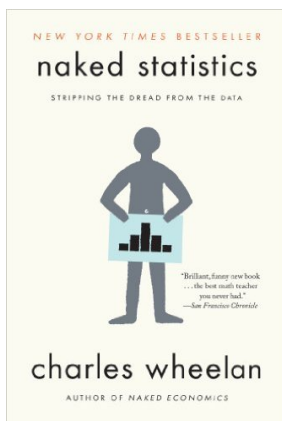


*The Lady Tasting Tea: How Statistics Revolutionized Science in the Twentieth Century,*

David Salsburg

ISBN: 0805071342

OPTIONAL:



*Naked Statistics: Stripping the Dread from the Data,*

Charles Wheelan

ISBN: 039334777X

**Software:**



We are going to be using a piece of software called StatCrunch. You need internet access and an up-to-date web browser. You can also use a smartphone and/or tablet to access it on their mobile site.

A student license can be purchased here: <https://www.statcrunch.com/get-access/> for \$13.75

**Calculator:** You need to have a TI-83 or TI-84 calculator for this class.

Rental: The Math Department has rental calculators for \$15. There are only a limited number available!

Pay at the Cashiers office, then take the receipt to the Betsy Buchanen in the Math Lab (back of the library)

There are also many good **apps** for smartphones

Android: [WabbitEmu](#) (Free)

iPhone: [GraphNcalc](#) (\$7.00)

## Grading

	Daily Homework	Exams	Final Project	Online Assignments
A 4 pts for each	Completed at least 95% of assigned	Average of at least 85% on exams	All steps completed	All online assignments complete.

	homework		AND  Report is well written	Average of at least 85% on quizzes
B  3 pts for each	Completed at least 90% of assigned homework	Average of at least 75% on exams	Missing some steps  OR  Report is not well written	All online assignments complete.  Average of at least 75% on quizzes
C  2 points for each	Completed at least 80% of homework	Average of at least 60% on exams	Missing some steps  AND  Report is not well written	80% of online assignments complete  Average of at least 60% on quizzes
D/F  See below	See below	D: Average of at least 50% on exams.  F: Average less than 50% on exams.	See below	See below

A: 14 to 16 points

B: 11 to 13 points

C: 8 to 10 points

D: if you fall below a C in any one category listed above, you will be given a D.

F: if you fall below a C in any two categories listed above, you will be given an F.

**Daily Homework:** I am grading homework for neatness and completeness. Include all the problems and show organized work. Answers are in the back of the book. If you do not understand a problem, then you can get help from tutors, peers, or me. I will always allow time in class for homework questions.

Keep a file of your homeworks after I have returned them!

**Online Assignments:** There will be weekly online reading/listening/watching and then writing assignments. These will be posted on Canvas.

There will (usually) be a weekly quiz. The quizzes will be assessing your understanding of the *concepts* more than computations.

**Final Project:** There will be a final project during the last month of the semester. Many more details to come!

**Homework Extensions:** The concepts in statistics build one on the other, so you cannot fall behind in the homework. But life happens. So I'll give you 5 extensions. To get an extension you must email me indicating that you are using an extension and the assignment you want extend.

You cannot use an extension on a Quiz or Exam.

**Exams:** There will be two midterms and a cumulative final exam.

Midterm 1 will cover chapters 1-5

Midterm 2 will cover chapters 7-10

The Final Exam will have two parts. The first part will focus on calculations from chapters 11-15. The second part will be essay questions asking you to explain key concepts from the course.

You'll have a general idea of when an exam is coming by where we are at in the material, and I will give notice the week before the exam. Exams are held during the class hours and regardless of the time you begin the exam, the deadline is at the end of the scheduled class time. If you are using the test proctoring services located in DSPS, be advised that you must schedule a time on the day of the exam. If you fail to attend the exam time that you have scheduled, then you forfeit your opportunity to take the exam.

No make-up exams will be offered without prior consent.

**Reference Notebook:** Statistics is notorious for its various formulas that can only be applied when specific requirements are met. During the semester, you will create your own personal Statistics Reference Book. In your Reference Book, you will write definitions, examples, and instructions of things that you learn in this course.



This notebook is *not* intended for taking notes during lecture, but for synthesis after you have read the material and have started doing the homework. It isn't until then that you will really know what is important to write down.

\*\*You will be allowed to use your Reference Book on all Quizzes, the Midterm, and the Final Exam\*\*. As this is the case, I will not be providing any of the formulas on the quizzes or tests.



## **BONUS READING:**

If you read either *The Lady Tasting Tea* or *Naked Statistics* in its entirety and complete a small set of short essay questions (so I know that you actually read it), then I will raise a category by one grade.

If you read both books and complete the essay questions, then I will raise two categories by one grade.

**Appealing a Grade:** If you believe you have received the wrong (or an unfair) grade for an assignment, please come talk! I am completely open to discussing that with you.

**Attendance:** Daily attendance is required to be successful for this class. Missing three or more classes without instructor approval will most likely result in being withdrawn from the course, and you will receive a W on your transcripts. If you miss a day, please check with a classmate to see what you missed. I also post lecture slides on Canvas. You are responsible for knowing the class material.

**Class Rules:** As a general rule *be respectful to your classmates and help provide a healthy environment for learning.*

Please do not talk unnecessarily during class, arrive on time and leave when class is dismissed. When you attend, give your attention to the material or activities we are working on. Please do not use class time to work on other projects. Do not come to class stoned, drunk or otherwise chemically compromised, and please do not come to class reeking of weed. (If you do, I will ask you to leave.)

Be aware that people have allergies, so please minimize deodorants and perfumes.

**Technology:** We are using computers. Please don't distract yourself or others by surfing the web. Same goes for cell phones. I'm not going to police usage, but if I start to feel like you or others are being distracted by them, then I will begin to deducting points from your grade.

## Important Dates:

Last day to drop a course without a 'W' and with a refund	September 4
Labor Day Holiday	September 7
Science Night!!!	October 21
Last day to drop a course with a 'W' and without a refund	October 30
Last day for faculty-initiated withdrawal without a refund	October 30
Veterans Holiday	November 9
Thanksgiving Holiday	November 26-27
Final Exam Week	December 7-12

**Assistance:** If you have a documented disability or believe you can benefit from any of the services offered by Disabled Student Programs & Services (DSP&S), please contact the DSP&S office 476-4280.

***Due to the unpredictability of life, course flexibility may be required. I reserve the right to make appropriate changes at any moment. These changes will be announced in class. If you are absent, it is your responsibility to check with other students in the class for the updates.***