

Syllabus for Math 15 – Elementary Statistics – Del Norte Site		
Semester & Year	Spring 2016	
Course ID and Section #	Math 15 Section 039512	
Instructor's Name	Amber Buntin	
Day/Time	Tues/Thurs 11:45-1:50pm	
Location	DM 15	
Number of Credits/Units	4 units	
Contact Information	<i>Office location</i>	DN 6
	<i>Office hours</i>	BY APPT (email me)
	<i>Phone number</i>	707-465-2316
	<i>Email address</i>	Amber-Buntin@redwoods.edu
Textbook Information	<i>Title & Edition</i>	Interactive Statistics 3 rd Edition
	<i>Author</i>	Martha Aliaga and Brenda Gunderson
	<i>ISBN</i>	0-13-149756-1
Course Description		
<p>As stated in CR's catalog: 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 frequency distributions, graphs, measures of relative standing, measures of central tendency, measures of variability, correlation, and linear regression to explore descriptive statistics. Students will use the laws of probability and statistical tests (t-tests, chi-square, ANOVA, and regression analysis) to make decisions via hypothesis testing and estimate parameters using confidence intervals.</p> <p><i>Note: A graphing calculator is required TI-83 or TI-84 recommended. Prerequisite: MATH-120, 194, 102 or appropriate placement exam score.</i></p>		
Student Learning Outcomes		
<ol style="list-style-type: none"> 1. Accurately communicate statistical ideas using correct statistical notation, graphs, and vocabulary. 2. Use descriptive and inferential statistics to solve real-world problems. 3. Demonstrate appropriate use of technology in making decisions based upon real- world data. 4. Read and interpret information that contains statistical analysis and be able to communicate these results. 5. Judge the validity of research reported in the mass media and peer reviewed journals. 		
Special Accommodations		
<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 Disabled Students Programs and Services. Students may make requests for alternative media by contacting DSPS at 707-464-2352.</p>		
Academic Support		
<p>Academic support is available at Counseling and Advising and includes academic advising and educational planning, Academic Support Center for tutoring and proctored tests, and Extended Opportunity Programs & Services, for eligible students, with advising, assistance, tutoring, and more.</p>		

Syllabus for Math 15 – Elementary Statistics – Del Norte Site

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 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: www.redwoods.edu/district/board/new/chapter5/documents/AP5500StudentConductCodeandDisciplinaryProcedureSrev1.pdf 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; 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: www.redwoods.edu/district/board/new/chapter5/documents/AP5500StudentConductCodeandDisciplinaryProceduresrev1.pdf 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 Del Norte campus:

Please review the campus evacuation sites, including the closest site to this classroom (posted by the exit of each room). The Crescent City campus emergency map is available at (<http://www.redwoods.edu/District/Maps/dnmap.asp>). For more information on Public Safety, go to <http://redwoods.edu/safety/> 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 campus authorities.

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, [707-476-4112](tel:707-476-4112), security@redwoods.edu, if you have any questions.

Math 15 ~ Elementary Statistics

Tues/Thurs – 11:45-1:50pm – DM 15 (Course number 039512)

Instructor

Amber Buntin, Department of Mathematics

Phone: 707-465-2316 Email (Preferred): amber-buntin@redwoods.edu

Office hours (DN 6): BY APPOINTMENT (email me)

Math Lab Hours (DM 15): Mon-Thurs 2:00-3:25pm

You must be signed up to utilize the math lab!

Course Description

As stated in CR's catalog: 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 frequency distributions, graphs, measures of relative standing, measures of central tendency, measures of variability, correlation, and linear regression to explore descriptive statistics. Students will use the laws of probability and statistical tests (t-tests, chi-square, ANOVA, and regression analysis) to make decisions via hypothesis testing and estimate parameters using confidence intervals.

Note: A graphing calculator is required TI-83 or TI-84 recommended. Prerequisite: MATH-120, 194, 102 or appropriate placement exam score.

Classroom Environment and Attendance

It is essential to our class that both the students and teacher behave in a manner that will provide a comfortable learning atmosphere. Be respectful to one another. You should not hesitate to ask questions nor feel embarrassed to ask for help.

Class time is valuable, and while sometimes we will work on in-class activities, I ask that you DO NOT complete homework in class. Students miss the current material when working on assignments during lecture and often fall behind so it will not be tolerated.

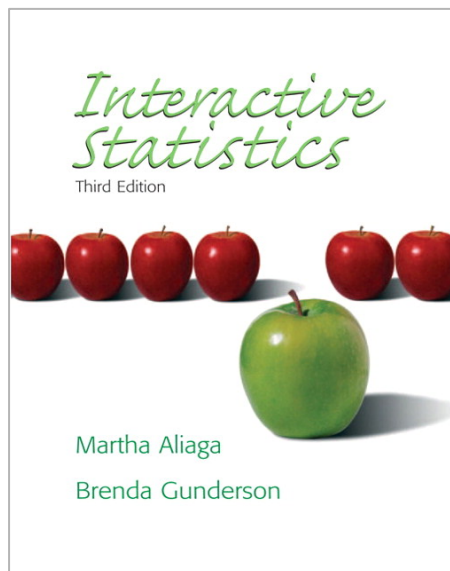
You are expected to arrive on time and to leave upon dismissal. Arriving late or leaving before class is dismissed is disruptive and disrespectful to your fellow students as well as your teacher. Please be prepared with your headphones put away and cell phones SILENCED. If you must miss a day, please check with a classmate to see what you missed and hand in assignments early.

Grades

Homework/Activities.....	30%	93-100%.....	A
Discussions/Participation.....	10%	90-92%.....	A-
Quizzes.....	10%	88-89%.....	B+
Exams/Project.....	30%	83-87%.....	B
Final Exam.....	20%	80-82%.....	B-
		78-79%.....	C+
		70-77%.....	C
		0-69%.....	D-F

*** Final grade is at the professional discretion of the instructor ***

Required Materials



Textbook

Interactive Statistics (3rd Edition)

Written by Martha Aliaga and Brenda Gunderson

- Bookstore:
 - Rent – New 127.05, Used 90.75
 - Buy – New 181.50, Used 136.25
- Or purchase/rent the textbook online through a webpage such as Chegg.com, amazon.com etc.
- You will be required to read and complete exercises from your textbook

Supplies

A graphing calculator is **required** (TI-83+ or TI-84 recommended) and available to rent from the library for \$15 per semester (see Tanya at the main office and pick up from Lynn in the Library), a composition notebook (used as reference book), pencils and erasers, a **binder and notebook paper to complete homework**, ruler or straightedge and graph paper. Access to a computer with internet capabilities is also a requirement.

Reference Book

You will be keeping a reference book that will contain important information you have learned throughout the semester such as definitions, formulas, and examples. This reference book is **not a book for you to write all of your notes in**. It is for you filter through your class notes and to re-write up the important information/tips/notes to yourself about important concepts. Some students already write all of their in-class notes VERY nice and neat and I will accept this as your composition notebook, but you must get my approval. I will collect your reference book during exams and grade them as a homework assignment. I suggest doing a nice job on your reference book because you will be allowed to use the reference books on in-class quizzes throughout the semester (See **Reference Book Instructions** page for more info).

Canvas

Our course canvas page will be updated regularly and will contain a variety of items such as: course announcements, class documents, assignments, discussions, grades and much more. Be sure to turn on your notifications if you'd like to be notified about things like new announcements, changes to assignment due dates etc. You will be expected to check canvas daily and be aware of announcements made.

Link to Canvas: <https://redwoods.instructure.com/>

Homework

Homework problems will be assigned from the textbook, or other sources and may include discussions in Canvas. Assignments and due dates will be posted in Canvas. They will be due nearly each lecture period, and are handed in on the announced due date at the beginning of class after questions are answered. We will have 5-15 min reserved for homework questions each class. You are encouraged to work collaboratively on your homework but be sure to NOT COPY.

Assignments are typically worth 10 points each. Typically, **I will pick 4 problems to grade (2 points per problem) and 2 points are reserved for neatness and completeness.** It will benefit you to check (NOT COPY) the answers to the odd numbered problems in the back of the book.

At the end of the semester, your **two** lowest homework scores will be dropped from your grade. Due to this, **I will not accept late work unless one of your three late work vouchers is attached.** It is your responsibility to ensure that you get your HW turned in; if you know you will be missing class, you should turn your HW in **before** the due date, send it with a friend to class, or hand it in to the main office to be placed in my mailbox **before** classtime on the due date. **In the case of a documented emergency,** I will also accept homework that is scanned and emailed to me BEFORE start of class on the due date (please email as a .pdf file and make sure it is legible).

I recommend being organized and keeping all “scratch work,” and returned work in a binder. You are expected to use proper mathematical notation as learned in class. All HW should be neat, legible and well organized. Messy papers will get point deductions and may even be returned ungraded. (See “Homework Guidelines” handout).

How to Succeed in this Course

- ✓ Read your text. You are required to read the section of the text ahead of the scheduled lecture date on that topic.
- ✓ Be in class on time every day.
- ✓ Do your homework! Plan to spend at least 1-2 hours outside of class for every hour inside of class. That is the minimum investment of time for success in this course.
- ✓ Work with classmates. Mathematics is a social subject (but not a spectator sport). Working with fellow students helps in your own understanding of the ideas of the course (as you explain and/or hear others explain key concepts and procedures).
- ✓ READ and KEEP your returned work. When you get work back, look for any remarks that I have made. Keep your work in a binder to keep a record of your scores. This is to make sure I correctly enter your grades.

Projects

There will be a project(s) using statistical analysis methods learned in class on a data set. More information about assignment requirements will be provided during the semester.

Quizzes

There will be periodic in-class OR take-home quizzes throughout the semester that will be announced at least one class period in advance. These quizzes will include material covered in recent coursework/homework. Quizzes are worth 10 points each and the number of questions will vary depending on the difficulty of the material. There are NO make-ups for missed quizzes. I will drop your lowest quiz score at the end of the semester.

Exams and the Final

There will be 2-3 closed book in-class exams (30% of your grade) throughout the semester and a final examination (15% of grade) at the end of the semester. Every student is REQUIRED to take a final exam in order to receive a passing grade. I will notify the class **at least one week** in advance as to the date of each in class exam. Before each exam, I will schedule a study session (inside or outside of class).

All exams need to be taken in class ON THE DAY OF THE EXAM unless you have made prior arrangements with me. Be sure to make all travel plans accordingly as there will be no make-ups for missed exams except in extreme or emergency cases (must provide documentation). If you take exams in the testing center, you need to make sure you make an appointment in advance so that you take the final exam at the designated time.

*****Final exam date and time to be determined*****

- If you have a documented disability or believe you can benefit from any of the services offered by Disabled Student Programs & Services (DSPS), please contact the DSPS office at 465-2352 (phone), 465-2388 (fax), TTY 465-2354 or view their webpage: <http://www.redwoods.edu/district/dsps/delnorte/index.asp>

Tutoring

- **The Math Lab.** I encourage you to enroll in MATH 15L, section 039676 for .5 unit (22.5 hours ~ 1.5 hrs a week req) or section 039677 for 1 unit (45 hours ~ 3 hrs a week req) of credit and in order to obtain supplementary help. This is the cheapest for-credit tutoring option available on campus and I can't stress enough the value. Math lab is located in RM 15 this semester.
- **MATH 252** Open Mathematics Lab (039995 No Credit) This is a free, no credit option to get math tutoring help. **If you do not need units** or want math help but cannot fulfill the hour requirements for mathlab, then this is the option for you!
- **GUID-147** Applied Study Skills & Strategies for Math (1-2 units credit available). DSPS tudents work with a tutor and other math students to aid your success. Please check webdvisor for course numbers. 36-72 hrs required.
- **OPTIMATH** practice assignments give immediate feedback and written out solutions: <http://msenux2.redwoods.edu/cgi-bin/online/s16/OTcreatepracticequiz.cgi?course=math15>
- The **CR Math Jam** webpage is a great way to review concepts from algebra, if needed, and contains lessons as well as OPTIMATH assignments: <http://mathrev.redwoods.edu/mathjam/?s=public>

Academic Honesty

Cheating is not accepted. If you are cheating, you will receive a grade of F in the course. Any violation of academic misconduct will be dealt with according to the procedures and sanctions proscribed by the College of the Redwoods. The student code of conduct is available on the College of the Redwoods website at: <http://www.redwoods.edu/District/Board/New/Chapter5/Ap5500.pdf>

Faculty Withdrawal of Students

It is the policy of the College of the Redwoods Math Department to exercise a "Faculty Withdrawal" for any student who has missed more than 15% (or about two weeks) of the class meeting time (prior to the drop deadline), due to the severely diminished likelihood of a successful outcome in the course. It is important to note that, if it is the student's intention to withdraw from the course, the responsibility remains with the student to ensure the proper paperwork has been filed – that is, students are not to assume the teacher will file the "Withdrawal" automatically.

Final words

A few words about my expectations for you and myself in this course: My responsibilities include coming to class prepared to teach you mathematics, giving clear lectures, assigning carefully chosen homework problems that are relevant to our course and carefully preparing exam questions that accurately measure your progress in the course. Additionally, I am responsible to be available to you outside of class for consultation in office hours (by appointment...just email me ☺).

Likewise, I believe that you are ultimately responsible for your college education and I expect you to come to class motivated to learn the material. This involves keeping up with homework assignments, seeking additional help, either from me or from the many resources available to you here on campus, before it is too late.

*******Syllabus Subject to Change*******


Announcements will be made in class. If you are absent, it is your responsibility to check your email AND with your fellow classmates!

Guidelines for Writing Homework

Please follow these guidelines when completing homework assignments.

It makes my grading experience much more pleasant ☺

1. Complete homework assignments on a **separate sheet of paper** (not in book). You **may use both sides** of the paper. Most answers require a full sentence to answer the question.
2. **Staple** all homework in the upper left hand corner.
3. **Label** your homework with your name, course number, and section number in the upper right-hand corner (see example below).
4. Write your problems in order **DOWN** the page. Please **skip a line** between problems.
5. **Circle, box, or highlight** your answers to each exercise so I can find your answer quickly.
6. Please use **pencil** when writing your homework, and please write legibly and neatly. Presentation is a component of your homework score. **NO PENS!**
7. Be sure to **show your work** when solving a problem. A problem with just the answer and no work shown will receive **NO CREDIT**.
8. **Cut or tear off** any frilly edges on paper torn from a notebook.
9. When creating a graph, you **MUST USE GRAPH PAPER AND A RULER** or you will get a **ZERO** on the assignment.
10. If you are ever given two assignments due on the same day make sure complete them, and **staple them SEPARATELY**.



Staple in upper
left corner.

Ima Student
Math 15
HW 7

HW 7: 15, 21, 34

7.15 (a) The value of 4 represents the number of students who take the course as an elective and rate the course as being a poor one.

(b) The conditional distribution of course rating given the reason is:

		RATING		
		Poor	Good	Excellent
REASON	Required	22.86%	54.28%	22.86%
	Elective	13.33%	33.33%	53.33%

(c) Students who take the course as an elective tend to rate the course higher than students who take the course as a requirement.

7.21 (a) Frequency Plot for the number of squares for the 20 rats in the experiment.

					X				
				X	X	X	X		
		X		X	X	X	X		
X	X	X	X	X	X	X	X	X	X
2	3	4	5	6	7	8	9	10	11
									# of Squares

(b) The number of squares ranged from 2 up to 11, with most of the rats having values between 6 and 9.

7.34 (a) Fifteen shoes produced by Plant A were priced at \$40 or higher.

(b) The distribution of shoe prices for Plant A is (i) symmetric and (ii) unimodal.

(c) The distribution of shoe prices for Plant B is (i) symmetric and (iii) bimodal.

(d) i. The direction of extreme is two-sided.
 ii. The p -value corresponding to the observed price of \$55 is $(2+2)/20 = 0.20$
 iii. At the 5% level, the decision is to fail to reject H_0 .

Reference Book Guidelines

Math 15 – Spring 2016

Your reference/composition notebook has many useful purposes:

- It helps you **study for exams** by *re-writing* in-class notes and determining what information is important to YOU.
- **It improves overall organization** of notes.
- **You can use your book on quizzes** provided you turn it in to be graded for in-class exams and keep it up to date.
- You can use it to help study in your **future math courses!**

Requirements:

- You should purchase a **composition notebook**...graph paper is best, but a lined one will do just fine. You can also use a regular spiral bound notebook (with graph paper if possible).
- This book should be **SEPARATE from your in-class notebook** (unless class notebook is approved).
- **Write your name and CONTACT INFO inside of front cover/cover page.** In case you lose your book, you should have your name and an email address or phone number or address.
- **Skip at least 3** pages in the beginning of your book for a **Table of Contents** (more if you write big). You should include description of the material you have written on a page, and page number (see the table of contents of your textbook or any book).
- **Number your pages** in the top right, or lower left.
- **Summarize concepts** you have learned using your own words. Make notes to yourself about strategies used, proper notation and your common mistakes.
- You must **write “a little something” from EACH section.** Even if you “know it already.” At the end of the semester, come the last exam, things that you know in the beginning of the semester, you may no longer have memorized.
- Your reference book will be **collected DURING Exams** and graded as a written homework. It will be worth **10 points each time it is graded.**

Helpful Hints:

- **Do a little bit at a time.** Do not try to cram everything in there the night before a quiz. Have your book out when you are doing homework and maybe jot down a particularly challenging example you encounter. In class, sometimes I will say “you might want to put this in your comp book.” Put a star by that info and copy it into book **right after** of class so you remember.
- **Use colors!** Maybe write/highlight definitions in green, examples in purple, important things to remember in red...and so on. Be creative!
- **Don’t write/highlight too much** as it will be difficult to find what you’re looking for when using it as a reference.
- **Make it YOURS!** Use colors, doodle in it, make it pretty but try to keep it neat :)