

<b>Syllabus for Introduction to Statistics – Eureka Campus</b>		
<b>Semester &amp; Year</b>	Spring, 2019	
<b>Course ID and Section #</b>	Math-15-E6025	
<b>Instructor's Name</b>	G. Todd Olsen	
<b>Day/Time</b>	MWF 1:15pm-2:30pm	
<b>Location</b>	SC 208	
<b>Number of Credits/Units</b>	4	
<b>Contact Information</b>	<i>Office location</i>	CA128
	<i>Office hours</i>	By Appointment
	<i>Phone number</i>	707-476-4229
	<i>Email address</i>	todd-olsen@redwoods.edu
<b>Textbook Information</b>	<i>Title &amp; Edition</i>	<i>Interactive Statistics, 3rd ed.</i>
	<i>Author</i>	Martha Aliaga and 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>		
<ol style="list-style-type: none"> <li>1. Accurately communicate statistical ideas using correct statistical notation, graphs, and vocabulary.</li> <li>2. Use descriptive and inferential statistics to solve real-world problems.</li> <li>3. Demonstrate appropriate use of technology in making decisions based upon real-world data.</li> <li>4. Read and interpret information that contains statistical analysis and be able to communicate these results.</li> <li>5. Judge the validity of research reported in the mass media and peer reviewed journals.</li> </ol>		
<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 educational planning, <a href="#">Academic Support Center</a> for tutoring and proctored tests, and <a href="#">Extended Opportunity Programs &amp; Services</a>, for eligible students, with advising, assistance, tutoring, and more.</p>		
<b>Academic Honesty</b>		

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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:

[www.redwoods.edu/district/board/new/chapter5/documents/AP5500StudentConductCodeandDisciplinaryProceduresrev1.pdf](http://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; 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:

[www.redwoods.edu/district/board/new/chapter5/documents/AP5500StudentConductCodeandDisciplinaryProceduresrev1.pdf](http://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 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/Eureka/campus-maps/EurekaMap\\_emergency.pdf](http://www.redwoods.edu/Eureka/campus-maps/EurekaMap_emergency.pdf)). 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 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

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“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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**Instructor:** Garrett "Todd" Olsen  
**Office Hours:** Email me for an appointment  
**Office:** CA128 **Phone:** 707-476-4229

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**Email:** [Todd-Olsen@redwoods.edu](mailto:Todd-Olsen@redwoods.edu)

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**Textbook:** *Interactive Statistics*, 3<sup>rd</sup> ed., Martha Aliaga and Brenda Gunderson.

**Required Reading:** *Naked Statistics*, Charles Wheelan.

**Course Goals:** (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) Demonstrate the characteristics of an effective learner and critical thinker, such as note-taking, critical reading, communication through writing, verbal discussions, the ability to work as part of a group, etc. (5) Read and interpret information that contains statistical analysis and be able to communicate these results. (6) Judge the validity of research reported in the mass media and peer reviewed journals.

**Weekly time commitment:**

**Important Note:** This course will require 13.5 to 18 hours per week to successfully complete.

1. There is a basic formula defined in the [college catalog](#) (see page 18, "Unit Defined") that specifies that 1 unit of credit = 54 hours of "lecture, study, or laboratory work." Since this is a 4 unit course, we can calculate the minimum number of hours required as  $4 \times 54 = 216$  hours for the semester. Now, divide this number by 16 weeks ( $216/16 = 13.5$ ) to get the minimum number of hours per week, 13.5 hr./wk.
2. It is very important to keep in mind that 13.5 hours/week is a minimum. Students who need more time to read and write will require more time. Students who have limited experience with creating and managing computer files will need more time per week.
3. Falling behind creates a backlog of work. The work does not go away. What happens is the 13.5 – 20 hour per week commitment becomes a 14 – 22 hour per week commitment, then a 16 – 24 hour per week commitment, etc. This can create a situation where successful completion of the course becomes unviable. **Don't fall into this trap.**
4. 12 units per semester has traditionally been considered a full-time student load. There is a good, mathematical reason for this understanding.  $54 \text{ hours per semester per unit} \times 12 \text{ Units} = 648 \text{ hours per semester}$ .  $648 \text{ hours per semester} / 16 \text{ weeks per semester} = 40.5 \text{ hours per week}$ .

**Drop/Withdrawal:** Student-initiated withdrawal may occur through the second week of class with nothing recorded in the student transcripts and from week's 2-10 with a recorded W (withdrawal). Administrative procedure (AP) 5075 allows instructors to withdraw students from class for non-participation through the 10<sup>th</sup> week of class. Non-participation may result in involuntary withdrawal. No course withdrawal is allowed after the 10<sup>th</sup> week of class.

Examples of non-participation:

- Failure to submit work or post to discussions.
- Failure to submit a topic for Essay Exam 1 to the "Check My Topic Discussion" within the assignment's grace period.
- Failure to submit a rough draft within the assignment's grace period.
- Consistent late work and excessive missing assignments.
- Missing more than 6 class periods.

**Calculators:** You are required to have a calculator with a statistical package. Currently the Texas Instruments TI-83/84 is the best statistical calculator available and the one you must have for this course.

<b>Grading:</b>	Homework	15%
	Discussions	10%
	Quizzes/Activities	20%
	Essay Exams (2 @ 20% each)	40%
	<u>Final Exam</u>	<u>15%</u>
	Total	100%

**Letter Grades** – Specific letter grades will be assigned based on the recommendations in the [College Catalog](#), see page 20.

**Homework:** Homework is absolutely essential to the learning of Statistics. One cannot learn Statistics without doing Statistics. Regular homework will be assigned each week and is due the first class meeting the following week. Your homework will be evaluated on accuracy, completeness and neatness.

**Homework Format:** The following format must be followed in order to receive credit for your homework assignments:

1. Make sure that the sections and individual problems are in sequence.
2. Fold the homework in half lengthwise (the long way).
3. Write your name, the assignment number, and days and times the class meets on the front of the folded assignment (assume it should open like a book).

**Quizzes:** Quizzes will be given periodically during the semester and will typically cover material from the textbook, class lectures, homework and required reading assignments. It is best to stay current in your reading and study to do well on the quizzes. If you miss class or are late to class on a quiz day, you miss the quiz. No makeup quizzes will be given.

**Activities:** Cooperative learning activities are an important part of this course. These assignments will be given and are to be completed during class time. Since these activities require group work, they must be completed in class. Activities must be done in class during the assigned time class time.

**Essay Exams:** You will be assigned two take-home essay exams during the semester. You are encouraged to work together on these projects, and you are required to share your ideas and critique each other's work. Each of these projects will follow a schedule of drafts culminating with a final report. Your grade for each of these projects is based on the quality of your participation in this process as well as the quality of your final report. These essays must be uploaded into Canvas as PDF files before the end of the grace periods.

**Final Exam:** The final exam for this course will be cumulative and consist of short essay questions, computations and interpretations. The final exam will be given only during the scheduled time. Please make your vacation plans with this in mind. If you need to be absent from the final for a reason that is not serious and compelling, you must drop the course before the deadline, or file a petition to waive college regulations (see me about this).

This syllabus is not intended to be nor should it be construed as a contract. This syllabus is meant to be a guide and source of information about the course. As your professor, I reserve the right to make changes

and adjustments in the syllabus in light of developments in circumstances and unforeseen needs of the class.