

Course Information

Semester & Year: Fall, 2019
Course ID & Section #: Math 15, V7281
Instructor’s name: Garrett “Todd” Olsen
Day/Time: Online
Location: Online
Number of units: 4

Instructor Contact Information

Office location: Online
Office hours: N/A
Phone number: 707-476-4229
Email address: Todd-Olsen@redwoods.edu

Catalog Description

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.

Course Student Learning Outcomes

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.

Weekly time commitment

Important Note: This course requires at least 14 hours per week on average for successful completion.

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.
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.**

- 12 units per semester has traditionally been considered a full-time student load. There is a good, mathematical reason for this understanding. $54 \text{ hours per semester per unit} \times 12 \text{ Units} = 648 \text{ hours per semester}$. $648 \text{ hours per semester} / 16 \text{ weeks per semester} = 40.5 \text{ hours per week}$, which is equivalent to a full time job.

Evaluation & Grading Policy

Grade Categories and Weights	Letter Grade Assignment
Homework. 15%	A: 90 – 100%
Discussions 15%	B: 80 – 89%
Quizzes/Activities 15%	C: 70 – 79%
Essay Exams 40%	D: 60 – 69%
Final Exam 15%	F: Less than 60%
Note: These weights are programmed into and calculated by Canvas' gradebook.	Note: You can find your percent grade in the course by looking in Canvas' grade book under "Total."

Homework: Regular homework will be assigned and due dates will be clearly noted in Canvas. Your homework will be evaluated on accuracy, completeness and neatness.

Homework Format: You will complete the homework assignments using paper and pencil then photograph each page with a smart phone, digital camera, or other electronic device. Your homework assignments must be in .pdf file format. You are responsible for uploading these files, in the correct format into Canvas before the deadline.

File Format: Portable Document Format (PDF) is one of the most versatile and widely utilized file formats in use today. All files submitted for this course must be in pdf format and have a logical, descriptive file name that starts with your last name (example - OlsenHW1.pdf).

Activities: You will be assigned several activities during the course. You are welcome to collaborate with anyone you wish on these assignments, but the final writeup must be your own work.

Discussions: You are required to participate in all discussions during the semester. Please note that participation in these discussions is part of your grade for this course. Your score for this part of the grade will be based on the quality and frequency of your posts.

Quizzes: Quizzes will be administered via Canvas' "Quizzes" tool. These are open-book quizzes, but you should **prepare as you would for a face-to-face class**. You will have limited time for each quiz and will not have time to search and find answers in the lectures or textbook. The quiz will cover the material covered since the previous quiz. Each quiz will be posted to Canvas, and you may take the quiz anytime during the open period. Once you start the quiz though the clock starts, and you will have a fixed amount of time to complete the quiz. You are expected to follow the class code of conduct on quizzes (see below).

Naked Statistics is a novel about statistics. Within are stories and simple explanations for key statistical concepts. This novel is a required reading from which graded discussions and quiz questions will come. You are given a reading schedule within the homework assignments, but are also encouraged to read this novel sooner if possible as its contents are meant to enrich your understanding of statistical thought.

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.

Final Exam: The final exam for this course will be cumulative and consist of problems similar to the quizzes as well as short essay questions. The final exam will be administered via Canvas. The final exam is open-book, but you should **prepare as you would for a face-to-face class**. You are limited to 3 hours for the final exam and will not have time to search and find answers in the lectures or textbook. You are expected to follow the class code of conduct. You are expected to follow the class code of conduct on quizzes (see below).

Contesting a Grade

Students have one week from the time an assignment has been graded to contest the grade with me. If for any reason you are not sure why you earned the grade you received, or if you unclear on the grading policies, please message me via the Canvas messaging system.

Incomplete Grade

As a general rule, I do not give incomplete grades. This does not mean, however, that I will not consider such a grade. Only with *extreme and unpredictable extenuating* circumstances, happening at the very end of the semester will I consider an incomplete grade. College of the Redwoods has strict guidelines with regard to a grade of incomplete (see page 20 of the [catalog](#)). Incompletes are not an option to repair a low grade earned throughout the semester. A student must have already demonstrated significant and successful course progression beyond the last date to drop the course to be considered for an incomplete.

Course Materials

Textbook: *Interactive Statistics*, 3rd ed., Martha Aliaga and Brenda Gunderson (ISBN - 0-13-149756-1).

Required Novel: *Naked Statistics*, Charles Wheelan (ISBN - 978-0-393-34777-7)

Other Materials:

- Calculator: Texas Instruments TI-84 graphing calculator.
- [TI-84 Graph Link Cable](#).
- TI Connect TI-84 Graph Link [Software](#).
- A digital camera, smart phone or other device capable of taking photos that can be converted to PDF format.

Canvas Information

Your commitment will require at least as much time as you dedicate to a traditional class. A typical four credit hour class will require at least 14 hours per week of your time. You will need to carefully watch online lectures and read textbook chapters, participate in online activities and watch online videos, participate in online discussions, complete quizzes, and submit a final project. Conscientiousness, attention to details, and skills in reading and writing are critical for success. You must check in with your Canvas account for this course regularly as this is not a self-paced course and assignments will be added regularly throughout the semester. You should be logging into Canvas at least three or four times each week to see new announcements, discussions that are happening, and new assignments coming that are coming up.

Log into Canvas at <https://redwoods.instructure.com>

Password is your 6 digit birth date

For tech help, email its@redwoods.edu or call 707-476-4160

Computer Skills

Success in online courses depends in part on adequate computer skills. Students must be able to navigate the course website, open and download files, use a word processor and convert files to portable document format (.pdf), take photos of written work and manage photographic file formats, and submit files to the Canvas course website. **The only acceptable file format for all submitted work is PDF.** It is your responsibility to meet the technological demands of the course. Technological support is available via multiple online sources, and I will assist you in finding the most appropriate source for help.

Computer/Technology Requirements

This is not a course that can be successfully completed using a phone or tablet. There is a great deal of writing required, and a computer with a keyboard is a necessity. Also, even though Canvas works with most internet browsers, my experience has been that [Firefox](#) is the most reliable browser to use with Canvas. You also need to have reliable access to the internet. I would recommend broadband services from cable, DSL, or satellite providers.

Students can obtain a free [Office 365 license](#) (includes Word, Excel, PowerPoint and more) with a valid CR email.

Technology Requirements (computer, other hardware, and software) - [instructor: identify the computer requirements and any hardware or software necessary for students to succeed in your class.]

Before contacting Technical Support please visit the [Online Support Page](#). For password issues with Canvas, Web Advisor or your mycr.redwoods.edu email, contact its@redwoods.edu or call 707-476-4160 or 800-641-0400 ext. 4160 between 8:00 A.M. and 4:00 P.M., Monday through Friday.

Special accommodations statement

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 accommodations, please see me or contact [Disability Services and Programs for Students](#). Students may make requests for alternative media by contacting DSPS based on their campus location:

- Eureka: 707-476-4280, student services building, 1st floor
- Del Norte: 707-465-2324, main building near library
- Klamath-Trinity: 530-625-4821 Ext 103

Student Access

These standards are required by federal regulation. Students will have access to this course that complies with the Americans with Disabilities Act of 1990 (ADA), Section 508 of the Rehabilitation Act of 1973, and College of the Redwoods policies.

Student feedback policy

In a face-to-face course, students would be expected to come to each class during the semester. Similarly, you are expected to “come to class” in this course by logging into Canvas and participating in this course. While some online courses are self-paced, this one is not. Each week new assignments open, new discussions (some graded and some not graded) are assigned, and announcements are made. To be engaged, students must take the initiative to log in and participate.

The Canvas message tool is the way to stay in contact with me. Students who do well in this course message me regularly with questions about the reading, homework problems and video lectures. It is important to send detailed questions. The process of writing your question out in detail becomes part of the learning experience in this course and also helps me to focus my explanations.

Often when I write an elaborate explanation to a particular student, one that I believe would benefit the entire class, I will post it as an announcement. Any student may then post a follow up question or comment as a “reply” to the announcement.

Student Support Services

The following online resources are available to support your success as a student:

- [CR-Online](#) (Comprehensive information for online students)
- [Library Articles & Databases](#)
- [Canvas help and tutorials](#)
- [Online Student Handbook](#)

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.

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.