Syllabus for Introduction to Statistics – Online		
Semester & Year	Summer 2019	
Course ID and Section #	Math 15, Section # V9054	
Instructor's Name	Todd Olsen	
Number of Credits/Units	4	
Contact Information	Email Address	Todd-Olsen@redwoods.edu
Textbook Information	*Title & Edition*	*Interactive Statistics*
	Author	Martha Aliaga and Brenda Gunderson
	ISBN	0-13-149756-1

Course 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.

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.

Necessary Computer Skills

Success in online courses depends in part on adequate computer skills. Students must be able to navigate the course in Canvas via the internet, 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 convert these files to PDF format, 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.

Technology Requirements (computer, other hardware, and software)

Most computers and internet providers are adequate. I would recommend broadband services from cable, DSL, or satellite providers. You need to have reliable access to the internet and anticipate problems with your computer and internet access (including power outages) by not waiting until the last minute to submit assignments. It is your responsibility to meet the class deadlines.

Technology Support

Before contacting Technical Support please visit the Online Support Page. For password issues with Canvas, Web Advisor or your mycr.redwoods.edu email, contact Technical Support 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

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 707-476-4280.

Regular Effective Contact

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.

Academic Support and Resources

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

- CR-Online (Resources for online students)
- Library (including online databases)
- Canvas help and tutorials
- Online Student Handbook

Course Communication

The primary mode of communication for this course is written. The Canvas message tool is the most effective way to communicate with me directly.

You may also communicate with other students in the course using the Canvas message tool.

Students also communicate with each other through regular, graded discussions.

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.

Preferred name in Canvas

Students have the ability to have an alternate first name appear in Canvas. Contact Admissions & Records to request a change to your preferred first name. Your Preferred Name will only be listed in Canvas. It does not change your legal name in our records. See the Student Information Update form.

Proctoring

Proctoring is not required for this course.

Introduction to Statistics is a survey course designed to cover common statistical ideas such as hypothesis testing, parameter estimation and linear regression techniques. The emphasis in this course will be conceptual understanding and critical thinking while mathematical computations will be accomplished via calculator technology.

Instructor: Garrett "Todd" Olsen

Course 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.

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.

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)

Calculator: You are required to have reliable access to a Texas Instruments TI-83 or TI-84 graphing calculator. This is currently the best statistical calculator available and the one you must have for this course.

Grading:

Category	Weight
Homework	15%
Discussions	15%
Quizzes/Activities	15%
Essay Exams	40%
Final Exam	15%

Letter Grades – Specific letter grades will be assigned based on the recommendations in the College Catalog, see page 20.

Class Participation: Your commitment will require at least as much time as you dedicate to a traditional class. Additionally, this is a summer course which means that you will need to do as much work in half the number of weeks. 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 two written essay exams. 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.

Due Dates and Grace Periods:

Each assignment in Canvas has a due date. This is the date that the assignment is officially due. Most assignments also have grace periods. The grace period for a particular assignment is reflected in Canvas as the assignments "available until" date. The grace period for most assignments is 2 weeks. Once the "available until" date passes, the assignment is permanently locked and submissions can no longer be made. The purpose of the grace period is to allow for unforeseen circumstances in students' lives. Once the due date passes, the assignment is late. Once the grace period passes the assignment is locked.

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 understand 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).

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.