

Syllabus for Math 15-V1179

Introduction to Statistics

Course Information

Semester & Year:	Summer 2020
Course ID & Section #:	Math 15 V1179 <i>Introduction to Statistics</i>
Instructor's name:	Tami Matsumoto
Day/Time:	Online. June 1, 2020 – July 23, 2020. Due to health and safety concerns in light of the COVID-19 pandemic, Math 15 is only being offered in an online format this summer.
Location:	Online, in Canvas at https://redwoods.instructure.com/courses/11472
Number of units:	4 units Lecture

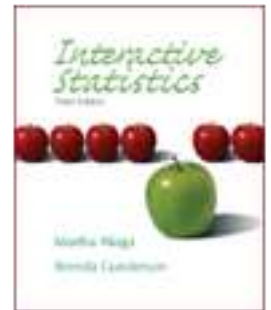
Instructor Contact Information

Office location:	Working From Home until further notice: [formerly: Room SC205B, Eureka campus]
Office hours:	Tuesdays & Thursdays 1-2pm and by appointment
Phone number:	707.476.4543
Email address:	Use Canvas messaging (preferred) or email tami-matsumoto@redwoods.edu (With email, include "Math15" as part of the email subject line)
Social Media:	https://twitter.com/TamiMathCR , https://www.instagram.com/TamiMathCR/ , https://www.facebook.com/TamiMathCR

Required Materials

Textbook

Textbook title:	<i>Interactive Statistics</i> , 3 rd Edition
Edition:	3 rd edition (original version or "Classic" version)
Author:	Aliaga & Gunderson
ISBN:	Original version: ISBN-13: 978-0-13-149756-6 "Classic" version ISBN-13: 978-0-13-499546-5



Other requirements: [materials, equipment or technology skills]

- **Graphing Calculator:** A TI-83 or TI-84 graphing calculator is required.
 - NOTE: A limited number are available for check-out (for free this summer).
- **Computer:** You will need reliable access to a computer (laptop or desktop) to complete the work for this class.
- **Camera/Scanner:** A digital camera, scanner, smartphone or other device capable of taking photos that can be converted to PDF format so that you can submit your written work.
- **Webcam:** You will need a webcam for proctored exams using Proctorio (see below). Many computers have a built-in webcam; if yours does not, you will need to purchase (or borrow) a webcam. There are inexpensive options available that plug into a USB port
- **Bound Notebook with Grid Paper:** Something like Roaring Spring #77475 or Ampad #26-251 (about \$2 - \$6), for example. It should be bound and have graph paper in it. You will use this throughout the course to build yourself a reference book.

- **Internet Access:** For email (using your “mycr.redwoods.edu” account) and for Canvas
 - **Time:** Plan on devoting Lots!! This summer Math 15 class moves about twice as fast as in a regular semester. To get the most out of this class, it is strongly recommended that you arrange your schedule to devote 20 to 30 hours (per week) on this one class, for the 8 weeks it is scheduled. It is practically like a full-time job -- just for 8 weeks. Note: *The book has about 1000 pages!*
- **Zoom Account:** We will use Zoom for “office hours” and appointments and Q&A Sessions. Sign up for free, using your “mycr.redwoods.edu” email address, at <https://cccconfer.zoom.us/>
- **Engagement and Participation:** Math 15 is a very difficult course and requires your full attention. We will also incorporate group work and discussion. It is vitally important that all students are not just "present," but fully engaged and actively participating in the class **at all times**. To be “fully engaged” it is vital that you log in to Canvas regularly to see Announcements and other communication.
 - If you anticipate that you will not be able to check the class in Canvas regularly (every day or every-other day) for the full 8 weeks, then you should not take this class. Or if you anticipate that you will not be able to do groupwork online collegially and collaboratively with your classmates, respecting everyone’s ideas, and treating everyone with kindness and consideration throughout the whole semester, then you should not take this class.
 - Furthermore, if your preference is to read a textbook, take notes, do a bunch of math problems independently, check the answers in the back of the book, and repeat, then this class is not a good fit for you.
- **Perseverance:** This is a very demanding course. The nature of the course (the material and time constraints) requires that students work through confusion and adversity in order to succeed in this class.
- **Support System:** Since the course is very demanding and time-consuming, to be successful, students must have support outside of this class. Ideally this would include time and people who can help you study, along with time and people who can help create areas of your life within which you can work and study on your own.

Catalog Description

From Math15 Course Outline of Record 11.09.18: An introduction to basic concepts of descriptive and inferential statistics, with emphasis on the meaning and use of statistical significance. Students will use probability techniques to make decisions via hypothesis testing and will estimate parameters using confidence intervals. The course includes applications from a variety of technical and social science fields.

NOTE: The MATH-15S support course is strongly recommended to take concurrently for students without previous mathematical experience in courses such as Algebra II or Pathway to Statistics.

Course Student Learning Outcomes (*from course outline of record*)

1. Accurately communicate statistical ideas using correct statistical notation, graphs, and vocabulary.
2. Use descriptive and inferential statistics to better understand 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.

Prerequisites/co-requisites/ recommended preparation

- Pre-requisite: Completion of Intermediate Algebra or appropriate placement based on AB 705 mandates.

Evaluation & Grading Policy

Final Course Grade

Requirements for "A/A-":

- Assignments*: complete at least 90% of problems in a legible, satisfactory way;
 - Advanced Assignments: have good work done on at least three-fourths of "Advanced" problems.
- Reference Book: Create your own excellent Statistics Reference Book with Title Page, all or most topics covered with a corresponding Table of Contents.
- Exams/Quizzes: at least 85% average
- Data Projects: at least 90% average

Requirements for "B-/B/B+":

- Assignments*: complete at least 85% of problems in a legible, satisfactory way;
 - "Advanced" Assignments: have good work done on at least one-third of "Advanced" problems.
- Reference Book: Create your own good Statistics Reference Book with Title Page, majority of topics covered with a corresponding Table of Contents.
- Exams/Quizzes: at least 75% average
- Data Projects: at least 80% average

Requirements for "C-/C/C+":

- Assignments*: complete at least 70% of problems in a legible, satisfactory way
- Reference Book: Create your own basic Statistics Reference Book.
- Exams/Quizzes: at least 65% average
- Data Projects: at least 70% average

Requirements for "D":

- Assignments*: complete a majority of problems in a legible, satisfactory way
- Reference Book: Create your own Statistics Reference Book.
- Exams/Quizzes: at least 50% average
- Data Projects: at least 60% average

For determination of +/- course grades, the entire class spread will be considered at the end of the term.

* "Assignments" will include problems from the textbook along with other assignments posted in Canvas.

Due Dates:

Each assignment will have a Canvas "due date" associated with it.

- You should aim to finish the assignment by the due date, but, if you have questions when the due date arrives, please get help and then finish up the assignment and turn it in later (without being considered late).
- Any work that is returned to you for revision will have revised "due dates" (and will not be considered "late").
- Thursday July 23, 2020 is the last day to submit any late work.

Institutional Policies

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 \(DSPS\)](#). Students may make requests for alternative media by contacting DSPS at 707-476-4280, or by visiting the DSPS office in the Student Services Building, 1st floor.

Admissions deadlines & enrollment policies for Summer 2020

- *Summer Session begins: Monday 6/01/2020*
- *Last day to add this class: 6/10/2020; Last day to drop without a W and receive a refund: 06/10/2020*
- *Census Day: 6/11/2020*
- *Last day for student-initiated W (no refund): 7/02/20; Last day for faculty-initiated W (no refund): 7/02/2020*
- *Summer Session ends: Thursday 7/23/2020*

Students who have experienced extenuating circumstances can complete & submit the **Excused Withdrawal Petition** to request an Excused Withdrawal (EW) grade instead of the current Withdrawal (W) or non-passing (D, F & NP) grades. The EW Petition is available from the Admissions and Records Forms Webpage. Supporting documentation is required.

Academic dishonesty

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. 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 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, the student 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. 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](#).

Policies for this Class

Class participation policy

Class Participation — It is extremely important that you check our class in Canvas regularly (daily or every-other-day) to participate and keep up. We cover 15 chapters in 7 weeks and it's nearly 1000 pages! That's about 140 pages per week, on average. If a week or more goes by without any participation from you, you might be dropped from the course.

IMPORTANT NOTE for Summer: Like all summer classes, this class is accelerated; we only have 8 weeks to cover 15 chapters. We need to "hit the ground running" and not stop until the end. If you fall behind, it will be extremely difficult to catch up. (Picture running after a speeding bus!)

Note that since there is no "finals week," we really only have about 7 weeks to cover the material so that the last week can be for wrapping up, reviewing, and the final exam.

Sometimes collaboration via small-group work will be assigned, and you will be expected to collaborate, and also will be responsible for completing your own work. We will also have discussions (using Canvas Discussion Forum), and you are expected to participate both as an active "listener" and as a contributor, each time. Participation in this densely-packed and fast-moving class is essential for your success! I plan to record activity each day and note who are or are not participating. If you have an issue that prevents you from participating for more than 2 days in a row, I would appreciate it if you would advise me of that (I do not need details), and let me know your "recovery plan" so that you don't lose out on too much information.

Communication Guidelines

To communicate with me

- Canvas messaging is preferred. Please include a Subject Line that is clear and informative.
- Email is also an option. Include "Summer Math 15" as part of your subject line, along with words that convey the topic of the message clearly.
 - With either method, the more detail you can provide, the better the response I can give you.
 - Please also know, though, that these methods are not completely reliable; if you have not gotten a response the same day (or within 24 hours), please re-send your message using a different method (so if you emailed, try Canvas next).
- Canvas Chat is sometimes a good option. If you and I are in Canvas at the same time, we can chat back-and-forth quickly and easily using Canvas Chat. Keep in mind that the Chat messages are visible to everyone in the course, whereas Canvas Messages and email messages are more private.
- Zoom. We will use Zoom for "office hours," "office" appointments, and Question-and-Answer sessions. Anyone can "drop in" during Zoom "office hours." Appointments can be reserved using the Appointment scheduler in the Canvas calendar (or by other prior communication) to meet with me outside of regularly-scheduled office hours.
- Phoning is also fine, but if you left a voicemail and have not gotten a timely response, please try another method (such as Canvas messaging) because often voicemail messages are difficult to hear clearly (sometimes due to your cell phone and your location when you call).

For me to communicate with you,

- Canvas Announcements. To disseminate information to the entire class at once, I will generally post an Announcement in Canvas. Please check Canvas Announcements regularly.
- Canvas Messages. I might also send a Canvas “message” to the entire class, with more pressing information. You can select how and where you would like to receive Canvas messages by changing Notification Settings in Canvas (look for “Notifications” under your profile). Canvas messages can be set to autoforward to your personal email, if you prefer, for example.
- Email. I expect you to have access to email and I expect to be able to contact you easily. The College uses your "mycr.redwoods.edu" email address to communicate with you so it is important that you receive those email messages and check your email inbox regularly. Note that you can set up your redwoods email to autoforward to another email address if you would like. Instructions for autoforwarding are available online.

For you to communicate with each other:

- Canvas Messages
- Canvas Chat
- Canvas Discussion Forum
- Zoom session. Any of you can set up a Zoom session and invite others to meet with you online.

NOTE: Student privacy rights: legal rights of students prevent information from being disclosed to anyone (including parents/guardians) without the student’s prior written consent.

Information for this Class

Class content

Class Content: The course material is organized into five Learning Units, with three chapters in each

At the end of each Unit, there will be a Unit Exam. Timed Unit Exams will be timed (45 minutes) and will be available on one day, to be completed by midnight. Some Unit Exams will be “take-home” (untimed).

Unit	Chapter Titles, pages	tentative exam dates
1	Chapter 1: How to Make Decisions with Statistics (pp 1-52, 62-66) Chapter 4: Summarizing Data Graphically (pp 211-284) Chapter 5: Summarizing Data Numerically (pp 299-333, 344-5)	Unit 1 Exam: Tuesday June 9
2	Chapter 6: Using Models to Make Decisions (pp 357-397) Chapter 7: Probability (pp 409-439, 454-470, 478-489) Chapter 2: Sampling Designs (pp 83-135)	Unit 2 Exam: Thursday June 18
3	Chapter 8: Sampling Distributions (pp 499-545, 555-7) Chapter 9: Making Decisions About Population Proportions (pp 563-594, 602-7) Chapter 10: Making Decisions About Population Means (pp 613-33, 639-53, 657-8)	Unit 3 Exam: Monday June 29
4	Chapter 3: Observational Studies & Experiments (pp 145-196) Chapter 11: Comparing Two Treatments (pp 669-727) Chapter 12: Comparing Many Treatments (pp 743-761, 791-3)	Unit 4 Exam: Wednesday July 8
5	Chapter 13: Regression Analysis (pp 807-901) Chapter 14: Analysis of Count Data (pp 921-966) Chapter 15: Nonparametric Statistics (pp 977-1002)	Unit 5 Exam: Thursday July 16
1-5	Comprehensive Final Exam on Units 1-5 in Final Week	Final Exam: Thursday July 23

Canvas Information

We will use Canvas as a “home base” for everything in this online class. In particular, you should check regularly (every day or every other day) for assignments, announcements, and other communication.

Login instructions for Canvas:

1. Open a web browser and go to <https://redwoods.instructure.com>
2. Your Username is the same as your **Webadvisor User ID** (e.g., flast123 - first initial + lastname + last 3 digits of your student ID number). The first time you log in Canvas, your initial password is your 8-digit birthdate (mmddyyyy). Change your password after you log in the first time.
3. Once logged in, at the left, select the “Courses” icon to see a drop down menu of your Courses; you may need to select “All Courses” at the bottom of that menu to find this class (or select “See All” on the mobile app).

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

Canvas Help for students: <https://www.redwoods.edu/online/Help-Student>

Canvas online orientation workshop: <https://www.redwoods.edu/online/Home/Student-Resources/Canvas-Resources>

Technology skills, requirements, and support

Technology skills

Tech equipment and skills are required for student success, and of equal importance as required textbooks and materials.

Necessary Computer Skills: Online courses require proficiency with computer skills. It is necessary that you have the ability to use Canvas effectively and to receive and respond to emails and Canvas messages in a timely manner. You must be able to:

- navigate the course Learning Management System (Canvas) effectively,
- receive and respond to Canvas messages and to your CR email in a timely manner,
- use a word processor (such as Microsoft Word),
- take images of written work and convert images to pdf format, and
- download files from and upload files to Canvas.

While it is ultimately your responsibility to meet the technological demands of the course, the college offers some resources, and it will be imperative for you to ask for help when you need it.

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

Computer & Internet Requirements:

The class is designed with the expectation that you have reliable access to a computer (laptop or desktop) – see note below about smartphones/tablets. You should have high-speed internet (such as broadband) service from cable, DSL, or a satellite provider because there are videos that require this speed. You will need to have reliable access to the internet for the duration of the course. Remember that there can be unexpected problems with technology, including your computer and/or internet access (and/or power outages) so please plan to allow enough time for submission of assignments. Even when everything is working properly, it can take longer than expected (and longer than it seems like it really should) to log in to Canvas, get to the correct page for an assignment, and upload a file, so please don't wait till the last minute. It is your responsibility to meet class deadlines.

Hardware Requirements -- Portable Devices vs. Computers:

- Computers: You should plan on doing the majority of your work (especially completing exams and submitting assignments) from a reasonably recent-model notebook or desktop computer (Mac or PC). Do NOT plan to participate in this class solely from a portable device.
- Mobile/Portable Devices: Although you can use late-model portable devices (such as Android or iOS phones & tablets) for some things, you should plan on doing the majority of your work (especially exams and assignments) from a reasonably late-model notebook or desktop computer (Mac or PC). Do NOT plan to participate in this class solely from a portable device.
 - If you do decide to use your portable device for some of your class work, use the free Canvas app (look for “Canvas Student” or “Canvas by Instructure”) which is available in iTunes (for iOS) and the Play Store (for Android).
 - Do not try to use Canvas via a web browser on a portable device. Your experience with Canvas will be a lot better using the app, but even so, the Canvas app does not include all the same features as the web-based version, so for the best experience, use Canvas online on a laptop or desktop computer.
- Webcam: You will need a webcam for proctored exams using Proctorio (see below). Many computers have a built-in webcam; if yours does not, you will need to purchase (or borrow) a webcam. There are inexpensive options available that plug into a USB port.

Proctored Exams:

One or more exams in this class will be proctored through Canvas via an online (virtual) proctoring system called Proctorio (or by an alternate arrangement with me). Proctorio is used through Canvas and uses a webcam on your computer. Proctorio will record you taking the exam and may occasionally ask you to video the room you are in. You will be recorded during the entire exam, and suspicious behaviors will be tagged for later review by me. Technology Requirements: TI-83 or TI-84 graphing calculator is required. NOTE: *A limited number are available for rent from the Math Lab in the ASC.*

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 Thursday.

Preferred Name in Canvas

Students have the option to have an alternate first name and pronouns to appear in Canvas. Contact [Admissions & Records](#) to request a change to your preferred first name and pronoun. 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](#). The form says that official documentation is required, but that is **only** required if you are changing your legal name; no documentation is required to change your preferred name in Canvas.

Gender-Inclusive Language in the Classroom

College of the Redwoods aspires to create a learning environment in which all people feel comfortable in contributing their perspectives to classroom discussions. CR encourages all instructors and students to use language that is gender-inclusive and non-sexist to affirm and respect how people describe, express, and experience their gender. Just as sexist language excludes women’s experiences, non-gender-inclusive language excludes the experiences of individuals whose identities may not fit the gender binary, and/or who may not identify with the sex they were assigned at birth. Gender-inclusive/non-sexist language acknowledges people of any gender (for example, first year student versus freshman, humankind versus mankind, etc.), affirms non-binary gender identifications, and recognizes the difference between biological sex and gender expression.

Student Support Services

The following online resources are generally 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](#)

- [Math Lab](#) Register in Math 52 or Math 252 to use the MathLab for Drop-in help all summer long!

The following are usually available – but subject to change during summers and during pandemics:

- [ASC Tutoring](#) (available for free to all CR students)
- Drop-in Writing Center

Special programs that are also generally available for eligible students include

- [Extended Opportunity Programs & Services \(EOPS\)](#) provides financial assistance, support and encouragement for eligible income disadvantaged students at all CR locations.
- The TRIO Student Success Program provides eligible students with a variety of services including trips to 4-year universities, career assessments, and peer mentoring. Students can apply for the program in [Eureka](#) or in [Del Norte](#)
- The [Veteran's Resource Center](#) supports and facilitates academic success for Active Duty Military, Veterans and Dependents attending CR through relational advising, mentorship, transitional assistance, and coordination of military and Veteran-specific resources.
- Klamath-Trinity students can contact the CR KT Office for specific information about student support services at 530-625-4821
- The [Honors Program](#) helps students succeed in transferring to a competitive four-year school.

Emergency procedures / Everbridge

College of the Redwoods has implemented an emergency alert system called Everbridge. In the event of an emergency on campus you will receive an alert through your personal email and/or phones. Registration is not necessary in order to receive emergency alerts. Check to make sure your contact information is up-to-date by logging into WebAdvisor <https://webadvisor.redwoods.edu> and selecting 'Students' then 'Academic Profile' then 'Current Information Update.'

Please contact Public Safety at 707-476-4112 or security@redwoods.edu if you have any questions. For more information see the [Redwoods Public Safety Page](#).

In an emergency that requires an evacuation of the building anywhere in the District:

- 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

If you are at a campus when an emergency occurs, do not leave campus until informed by campus authorities that it has been deemed safe to do so.

Caveat:

This is the current plan for this course and is subject to change with fair notice.