Syllabus for Math 15 – Eureka Campus		
Semester & Year	Spring, 2017	
Course ID and Section #	Math 15 E1082	
Instructor's Name	David Arnold	
Day/Time	MWTh 2:50-4:05	
Location	SC 208	
<b>Number of Credits/Units</b>	4	
Contact Information	Office location	SC 216H
	Office hours	M 1:00-2:00 PM, W 4:00-5:00 PM, F 1:00-2:00 PM,
		Online Office Hours, T Th, 9:00-10:00 PM
	Phone number	(707) 476-4222
	Email address	david-arnold@redwoods.edu
Textbook Information	Title & Edition	Interactive Statistics, Third Edition
	Author	Aliaga and Gunderson
	ISBN	0-13-149756

#### **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.

#### **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 <a href="Disabled Students Programs and Services">Disabled Students Programs and Services</a>. Students may make requests for alternative media by contacting DSPS at 707-476-4280.

#### **Academic Support**

Academic support is available at <u>Counseling and Advising</u> and includes academic advising and educational planning, <u>Academic Support Center</u> for tutoring and proctored tests, and <u>Extended</u> <u>Opportunity Programs & Services</u>, for eligible students, with advising, assistance, tutoring, and more.

#### **Academic Honesty**

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#### **Syllabus for** Math 15 – Eureka Campus

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: <a href="http://www.redwoods.edu/board/Board-Policies/Chapter-5-Student-Services">http://www.redwoods.edu/board/Board-Policies/Chapter-5-Student-Services</a>, 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: <a href="http://www.redwoods.edu/board/Board-Policies/Chapter-5-Student-Services">http://www.redwoods.edu/board/Board-Policies/Chapter-5-Student-Services</a> 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.

#### **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: (<a href="http://www.redwoods.edu/aboutcr/Eureka-Map">http://www.redwoods.edu/aboutcr/Eureka-Map</a>; choose the evacuation map option). For more information on Public Safety, go to <a href="http://www.redwoods.edu/publicsafety">http://www.redwoods.edu/publicsafety</a>. 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 <a href="https://www.GetRave.com/login/Redwoods">https://www.GetRave.com/login/Redwoods</a> 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 at 707-476-4112 or security@redwoods.edu if you have any questions.

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### **Syllabus for** Math 15 – Eureka Campus

College of the Redwoods is committed to equal opportunity in employment, admission to the college, and in the conduct of all of its programs and activities.

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# **David Arnold**

## **Mathematics**

- Department Home Page
- Canvas
- WebAdvisor
- Optimath
- David Arnold Home

# Math 15: Instructor's Syllabus

#### The Adobe Reader

To use the textbook and Optimath system in this course, you must have properly installed and configured the Adobe Reader on your computer. You will need to <u>download</u> a free copy of the Acrobat Reader to read them. Click the following icon to obtain a free copy of the Acrobat Reader.



It is important that you have the most current version of the Acrobat Reader that your system will allow. The above links will take you to the Adobe site. The Adobe site will analyze your system, but you may be asked to choose the appropriate version of the reader for your system. If this happens, carefully select the appropriate version of the reader for your system.

#### **Official Course Outline**

The official course outline for Statistics, including content, objectives, and student learning outcomes, can be viewed online via the following link. Please take some time to read the

#### Math 15 Course Outline

You'll find the following course learning outcomes on the course outline:

- 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.

## **Prerequisite Classes**

Math 120, Math 194, Math 102 with a grade of "C" or better or appropriate score on the math placement exam. In lieu of this prerequisite, students can take an assessment test in the Academic Support Center (the ASC is in the library) to insure proper placement in the course. Students are advised to see a counselor as they can be quite helpful in placing students in a course commensurate with their ability and background in mathematics.

### **Instructor's Schedule**

The following link contains a copy of my schedule, including office hours.

#### **Schedule and Office Hours**

Note: These are "official" office hours. However, I will make myself available whenever I can. Please do not be afraid to ask for help at any time as I am always eager to help.

#### Office Location and Phone

• Science building SC 216H

• Office phone: (707) 476-4222

### **Email**

My email address is: <u>David-Arnold@redwoods.edu</u>

## **Getting Help**

Help is available in many forms.

- Your instructor is always available for help in SC 216H when he isn't teaching class or attending a meeting. Take advantage.
- The Academic Support Center (ASC) in the library provides individual and group tutoring. You need to check in at the ASC desk and make an appointment to meet with a tutor.
- You can get wonderful assistance for your class in the Mathlab (again located in the ASC). Comprehensive information on the Mathlab is available at the following link:

Information on the MathLab

#### **Classroom Environment**

It is expected that everyone involved in this class, teacher and students alike, will act in a manner conducive to providing a comfortable environment for learning, a classroom where students feel free to ask and answer questions without fear of embarrassment or ridicule.

It is important to stay on task when class is in session. Hence, conversation not pertaining to the subject at hand should be taken outside the classroom.

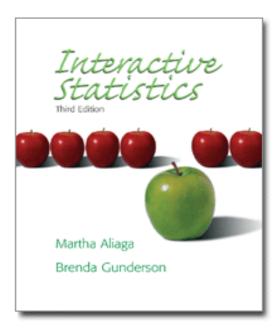
I understand that students will have to get up and leave the room for various reasons and I also understand that students will arrive late from time to time. However, courtesy requires that you enter and leave as quietly as possible, without disturbing discussion or lecture.

It is essential for student success to maintain a good environment in the classroom. If you have any personal difficulties with the learning environment in the classroom, please visit me in my office to discuss them.

### **Textbooks**

The Mathematics Department continues to be concerned with the rising prices of textbooks. Students in Math 15 have a couple of options for obtaining a textbook:

- The CR Bookstore sells copies.
- You can also purchase the textbook online. ISBN Information:
  - Interactive Statistics (Third Edition), by Aliaga and Gunderson, published by Prentice Hall (ISBN 0131497561)



- Online purchase recommendations:
  - Online searches for the 3rd edition. Important: When doing online searches for the text, search by the ISBN 0131497561.
    - A search of <u>Amazon.com</u> revealed <u>these prices and availability</u>.
    - A search of <u>BookFinder.com</u> revealed <u>these prices and availability</u>.
    - A search of <u>half.com</u> revealed <u>these prices and availability</u>.

## **Reading the Textbook**

It is important that you read and work the examples in the textbook before attemping the exercises. Many students will work the process in reverse. That is, they begin working the exercises, then if stuck, they page back through the narrative in the text seeking a similar example to the exercise on which they are working. This is **not** a recommended approach to the study of mathematics.

### R and RStudio

- We will be using R in this course to help produce graphics and perform statistical analysis. R is a free software package that is used extensively by statistics people throughout the world. You can view the R site online at <a href="http://www.r-project.org/">http://www.r-project.org/</a>.
- You can watch a movie on <u>Installing R</u>.
- You can watch a movie on <u>Installing RStudio</u>.
- After you have installed R and RStudio, watch the movie <u>Data Types and Basic Operation</u>. This will give you a nice introduction to the types of data that R uses. As you watch, pause the movie and type in the expressions in the RStudio console and learn what happens.
- Although we've installed both R and RStudio, it is RStudio that we will be using throughout the semester. RStudio is a user interface that makes the use of R much easier to handle. However, in order for RStudio to work, R must be installed first.
- If you have trouble getting these movies to play on your computer, try installing the <u>QuickTime</u> <u>Player</u>

### **Important Dates**

You can find some very important dates for the full semester at the following link, things such as census dates, last date for student withdrawal, etc.

### **Important Dates**

### Homework

Homework will be assigned daily and will be due the next class meeting. Each homework will be assigned a grade ranging from 0-10 points, bases on completeness, the following of directions, and the quality of work.

It is essential that students keep up with the homework on a daily basis. Each time you come to class without your homework, you are not prepared to take part in the class at a level geared to your success. Therefore, students are encouraged to hand in homework on time. However, I am acutely aware of the responsibilities that many students have to deal with outside the classroom. Consequently, I do allow a "grace period" of one class period for late work. That is, if you hand your homework in by the next class period, I will still accept the assignment. However, there is an automatic 2-point deduction for late work. Homework later than one class period will not be accepted.

If you are experiencing difficulty getting your homework in on time, or if you know an upcoming event will interfere with getting your homework in on time, please discuss this with your instructor. We can possibly make some arrangement to help facilitate the completion of your work.

In order to facilitate the recording of homework scores, students are required to place their name in the upper right-hand corner of their homework assignment and staple the pages together with a single staple in the upper left-hand corner. On the first line of the of the first page of your homework, please write down the assignement number, the pages that encompass the assignement, and list each exercise number assigned. For example, the first line of your homework might read:

Assignment #12, Page 150, #1, 3, 5, 7, 8, 10, 11, 23, 45

### **Examinations**

We will have two midterm examinations and a comprehensive final examination. Students should sit for all examinations on the day that they are administered (<u>Final Exams Schedule</u>). If you miss an examination, there is no guarantee that you will be allowed to make up the examination. Indeed, makeup examinations are given only at the instructor's discretion. If you know ahead of time that you have a conflict that will prevent you from sitting for an examination, please meet with me to discuss alternatives.

Students who need special arrangements for examinations are expected to meet with the instructor before **each** examination to insure that all examination materials are on file in the Academic Support Center (the ASC is in the Learning Resource Center (library)).

Every student will be required to sit for a final, cumulative examination. The time and day of this examination is posted in the Schedule of Classes and students are expected to sit for the exam at the time and on the day posted. No exceptions. Any student failing to sit for the final examination will receive an F in the class. Please keep this in mind when making travel plans for the end of the semester. Plan ahead!

## Quizzes

Over the years, when students know an exam is coming up, they put on hold studies in their other classes to "cram" for the upcoming test. This is perfectly understandable and I freely admit that I did much the same thing when I was a student.

However, this is really not a good way to learn. Often, students are frustrated to find themselves behind in their other classes as they stuggle to prepare for an exam. They are unable to participate in lectures and they cannot follow the material in class because they are sections behind in their work. This is also frustrating for the teacher as he often winds up talking to himself during lecture.

Consequently, you will regularly be given quizzes throughout the semester to take home and work on. In order for this to work, you must understand that any work on the quizzes must be your own. You are not allowed to work together on quizzes, nor are you allowed to ask for help of any kind from your fellow students, tutors, or other professionals. The work must be your own.

### **Attendance Policy**

A student who is absent from class for the amount of time equal to two weeks of classes, will be withdrawn from the course, unless there are extenuating circumstances that are communicated to the instructor in a timely manner. This "faculty withdrawal" can occur between Week 4 and Week 10 of the semester.

Attendance will be recorded each class session. If you know you will be missing class, you should let your instructor know.

### **Grades**

Your homework, quizzes, and examinations will be weighted and averaged to determine your final grade in the class. A running account of your work can always be viewed in your gradebook.

#### When Problems Arise

Should problems arise during the semester, always contact your instructor to let me know what's going on. That's the only way I can help.

## **Emergency Procedures**

Please review the campus evacuation sites, including the closest site to this classroom (posted by the exit of each room) and shown in <u>Emergency Evacuation Safe Zones</u>. See <u>Public Safety</u> for more information on campus Emergency Procedures.

### During an evacuation:

- Be aware of all marked exits from your area and building. Know the routes from your work area to the nearest exits.
- 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. (Be aware CR's lower parking lot and 101 frontage are within the Tsunami Zone).

RAVE - College of the Redwoods has implemented an emergency alert system. Everyone is entered already to receive a message at their CR email address. In the event of an emergency on campus, you can also elect to receive an alert through your personal email, and/or phones at your home, office, and cell. This emergency alert system will be available to all students, staff, and other interested parties.

Registration is necessary in order to receive emergency alerts. Please go to <a href="https://www.GetRave.com/login/Redwoods">https://www.GetRave.com/login/Redwoods</a> 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."

We will test the system each semester to be sure that you are getting alerts at all of your destinations. Please contact Public Safety, 707-476-4112, security@redwoods.edu, if you have any questions.

## The Syllabus is Subject to Change

As your instructor, I reserve the right to make adjustments to the syllabus should things not proceed as smoothly as expected. However, in general, I do not anticipate making changes.

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