Syllabus for Math 102 "Pathway to Statistics" – Del Norte Education Center		
Semester & Year	Fall 2018	
Course ID and Section #	Math 5 (D5102)	
Instructor's Name	W Levi Gill	
Day/Time	MW 12:30-3:00, 3:30-4:55pm	
Location	DN 2	
Number of	6	
Credits/Units		
Contact Information	Office location	E2
	Office hours	By appointment
	Phone number	707-465-2361
	Email address	levi-gill@redwoods.edu
Textbook Information	Title & Edition	Naked Statistics: Stripping the Dread from Data
	Author	Charles Wheelan
	ISBN	039334777X

Course Description

An approved CR and CSU General Education course designed primarily for non-science majors. This course is a study of selected topics from contemporary mathematics. Typical topics, which are chosen by the instructor, will be from areas including: inductive and deductive reasoning, mathematical modeling and analysis of linear and exponential functions, geometric symmetries, geometry of fractals, sequences and series, dynamics of population growth, statistics, mathematics of finance and management science, mathematics of methods of voting, fair division, and problem-solving techniques.

Student Learning Outcomes

- 1. Accurately communicate mathematical ideas using correct mathematical notation, graphs, and vocabulary.
- 2. Use of the graphing calculator or other technology to explore mathematical concepts and also to verify their quantitative conclusions.
- 3. Solve problems and applications demonstrating the skills required for college-level mathematics.
- 4. Examine the quantitative arguments on both sides of issues currently in the news.
- 5. Explain the concepts of mathematics of social choice, statistics, growth, symmetry, finance, and/or management science and use the concepts to solve problems in these fields.

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 <u>Disabled Students Programs and Services</u>. Students may make requests for alternative media by contacting DSPS at 707-465-2352.

Academic Support

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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

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 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. 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; 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 the Chief Student Services Officer or designee. The Student Code of Conduct (AP 5500) is available on the College of the Redwoods website at:

 $\underline{\underline{http://www.redwoods.edu/board/Board-Policies/Chapter-5-Student-Services}}.$

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 Del Norte campus:

Please review the campus evacuation sites, including the closest site to this classroom (posted by the exit of each room). The Crescent City campus emergency map is available at (http://www.redwoods.edu/delnorte/Maps-and-Directions; scroll down to the Safety Map). For more information on Public Safety, go to http://redwoods.edu/publicsafety_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 campus authorities.

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

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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 "redwoods.edu." Please contact Public Safety, 707-476-4112, security@redwoods.edu, if you have any questions.

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.

Mathematics Placement Statement

Is Math 102 appropriate for you?

What is Math 102?

Math 102 is a special course designed to accelerate students' progress through the mathematics sequence, so that the only required mathematics course needed to prepare the student for transfer is Math 102 and then Math 15 "Elementary Statistics." Math 102 is based on research and design from the California Acceleration Project.

Math 102 is not for everyone

Not appropriate for all disciplines
 Students who are pursuing a degree in Math, Science, or Engineering should not take
this class. If your degree requires more mathematics beyond algebra, then you should
talk to your advisor to determine the best math course for you.

Special Note: there is an error in the catalog description and students pursuing a degree in <u>biology</u> should <u>not</u> take this class. Most <u>nursing</u> Bachelors degrees do not require math other than statistics, so this class <u>would</u> be appropriate – however, you need to check with the particular school that you will be transferring to.

 Not appropriate if your math background already includes intermediate algebra (or "Algebra II")

You should consult with your instructor to move to a higher level mathematics course (such as Math 15) if one of the following criteria holds:

- You passed one or more of the following courses in high school: Precalculus,
 College Algebra, Trigonometry, or IB Math HL.
- You earned a score of 3 or more on the AP Statistics exam.
- You earned a score of 4 or more on the IB Math SL or IB Math studies SL exam.

o If you scored 34 or more on the Accuplacer College Level exam.

If your math experience includes intermediate algebra, but you are just "rusty" then there are other options, and you should talk to me about them.

Not appropriate for all individuals.
 Math 102 is a non-traditional class that will incorporate a lot of group work and discussion and minimal lecture. Attendance is crucial, not just for you but for the classmates you will be working with. Our class only meets twice a week and any absence would be the equivalent to missing half a week of instruction in other courses.
 Therefore, you must plan for perfect attendance (see more about attendance below).

Math 102 is an "Accelerated" Pathway

Acceleration does not just mean getting *to* Statistics quicker, but getting *through* Statistics quicker. The intention is that you take Statistics immediately after the completion of Math 102, and that you do so in a focused way – don't overload your next semester with hard classes. You will need to focus on completing Math 15.

How is Math 102 Different?

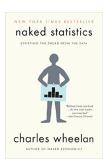
In intermediate algebra, students often get bogged down in formulas and calculations that seem to have little relevance to their lives. Math 102 includes *some* intermediate algebra, but only the parts that are essential for students to succeed in college-level statistics. In many fields and careers statistics, rather than algebra, is sufficient (for students who are <u>not</u> majoring in science, engineering or mathematics)

The primary objective of Math 102 is to prepare you to take Math 15 at CR. Math 102 does not transfer to any other institution. It is not an algebra course and it's not a statistics course, but rather, Math 102 focuses on some algebra and some pre-statistics concepts to help you succeed when you take Math 15. Topics include algebra, data analysis and critical thinking skills that are relevant to statistics. Math 102 will emphasize active learning via collaborative group work.

Materials you will need:

Textbook

Naked Statistics: Stripping the Dread from Data, by Charles Wheelan



Calculator: You need a scientific calculator. You can use an app on your phone as long as the phone is not a distraction in other ways.

Computer Access for

Email: You should regularly check your CR student email! But for this class I will be communicating primarily through Canvas. You should check daily.

Microsoft Office: You will be writing projects proposals, making slideshow presentations, and working with data. You'll want a current copy of Microsoft Office.

Students at CR get a free copy of Microsoft Office. Check our Canvas Page to start.



We'll be using this software for statistical calculations and analyzing data. You can purchase a 6-month license \$13.75 at www.statcrunch.com/get-access

Flash Drive or online storage account (such as Google Drive, Dropbox, Box, etc.)

Composition Notebook



A composition notebook is like a personal "Wikipedia" where you make entries on topics that you've learned in class. These entries may include a description of what is being discussed, pictures, graphs, formulas, and/or examples.

Colored Pens and/or Colored Sharpies [Optional]

We'll be making posters in-class. If you like to make them spiffy, you'll want these.

Grading

This course is based on effort. I genuinely believe that if you give an honest effort to the assignments I give you, then you will understand this material. Your grade will not be based on quizzes or tests, so that means it is important you engage with this material.

This course has three categories: <u>Reading</u>, <u>Final Project</u>, and <u>Homework/Classwork</u>. Each category has its individual grade. Your course grade will be the lowest grade of the three categories.

Here are some examples

Student 1

Reading: 70%

Final Project: 95%

Homework/Classwork 95%

Student 1 will receive a 70% in the class.

Student 2

Reading: 80%

Final Project: 80%

Homework/Classwork 80%

Student 2 will receive a 80% in the class.

If you attend class and do your homework, then you will find it to be very easy to get an A. If you start to fall behind in homework, or start missing class, then your grade will suffer.

**NOTE: Do not use Canvas to calculate your final grade. Instead use it to see how you are doing in each category.

Reading:

There are fifteen chapters in Naked Statistics, for each I want you to read the chapter and write up a summary for it. Sometimes the reading will also correspond to the weekend, in which case you will still write a report (and receive points) and do the homework component (and receive other points).

Homework/Classwork:

Each class will have group assignments that will be worth points. In general there will be two per class.

Homework will be assigned on Canvas. It is your responsibility to check to see what is posted.

The homework will consist of activities and readings to prepare you for the next class. If you do not have them completed by the time class starts, sometimes you might not be able to participate in the in-class activity and in those cases will lose points **both** for the homework and the in-class activity.

Project: There will be one major project which will ask you to answer a research question. The project will be graded on the following components: (1) written research proposal, (2) written final report containing calculations, charts, and analysis and (3) a presentation to the class. These projects will always be completed as group assignments, and I will give significant time in class to work on it.

Appealing a Grade: If you believe you have received the wrong (or an unfair) grade for an assignment, please come talk! I am completely open to discussing that with you.

Attendance: Daily attendance is required to be successful for this class.

Missing two or more classes without instructor approval may result in you being dropped from the course, and you will receive a W on your transcripts. If you miss a day, please check with a classmate to see what you missed. I also post lecture slides on Canvas. You are responsible for knowing the class material.

Withdrawing from the Course: You can withdraw from the course, or be dropped from the course by the instructor, up through the 10th week!!! If you think you are going to have attendance issues, or that you can no longer complete the course, you should let me know before that date if at all possible (otherwise, you will get an 'F' for your grade).

Class Rules: As a general rule be respectful to your classmates and help provide a healthy environment for learning.

Please do not talk unnecessarily during class, arrive on time and leave when class is dismissed. When you attend, give your attention to the material or activities we are working on. Please do not use class time to work on other projects.

Technology: We are using computers. Please don't distract yourself or others by surfing the web. Same goes for cell phones. I'm not going to police usage, but if I start to feel like you or others are being distracted by them, then I will begin to deducting points from your grade.

Assistance: If you have a documented disability or believe you can benefit from any of the services offered by Disabled Student Programs & Services (DSP&S), please contact the DSP&S office 476-4280.

Important Dates:

August 24 Last day to Withdraw without a "W" and get a refund

September 3 Labor Day (No Class)

September 5 No Class

November 2 Last day to Withdraw (or be be dropped)

November 19-23 Fall Break (No Classes)

December 10-14 Finals Week

^{*}Syllabus subject to change with appropriate notice*