Syllabus for: Elementary Statistics				
Semester & Year:	Spring 2013			
Course ID and Section Number:	MATH 120 E2691/E2692			
Number of Credits/Units:	4			
Day/Time:	E2691 MWF 10:05-11:20AM, E2692 MWF 11:40-12:55			
Location:	E2691 MWF PS201, E2692 MW PS210 F PS115			
Instructor's Name:	Michael Butler			
Contact Information:	Office location and hours: MW 1:00-2:00PM			
	Phone: 476-4234			
	Email: Michael-butler@redwoods.edu			

**Course Description**: A course in which functions are investigated graphically, numerically, symbolically and verbally in real-world settings. Linear, quadratic, polynomial, rational, radical, exponential, and logarithmic equations and functions are explored. Technology is integrated into all aspects of the course.

Special notes or advisories (e.g. field trips required, prior admission to special program required, etc.): Graphing calculator required, TI-83 or TI-84 recommended.

# Student Learning Outcomes:

- 1. Evaluate and interpret general functions symbolically, numerically, and graphically.
- 2. Produce an accurate graph of each function type introduced in the course, identifying and plotting all salient features.
- 3. Demonstrate appropriate use of technology in analyzing the behavior of functions presented in the course.
- 4. Use mathematical models to analyze and interpret real-world situations.
- 5. Use sound mathematical writing and appropriate use of symbolism in presenting solutions of mathematical exercises and applications.

**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.

**Academic Misconduct:** Cheating, plagiarism, collusion, abuse of resource materials, computer misuse, fabrication or falsification, multiple submissions, complicity in academic misconduct, and/ or bearing false witness will not be tolerated. Violations will be dealt with according to the procedures and sanctions proscribed by the College of the Redwoods. Students caught plagiarizing or cheating on exams will receive an "F" in the course.

The student code of conduct is available on the College of the Redwoods website at:

http://redwoods.edu/District/Board/New/Chapter5/AP%205500%20Conduct%20Code%20final%2002-07-2012.pdf

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 homepage.

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 120: Intermediate Algebra, Spring 2013**

#### **INSTRUCTOR:**

Michael Butler, PS 119A, 476-4234 email: michael-butler@redwoods.edu

**INSTRUCTOR SCHEDULE:** Current schedule and office hours can be found on MyCR.

**TEXT:** You may purchase a printed copy from the bookstore or get a free CD with the text on it in class or download from the web at: <a href="http://msenux.redwoods.edu/IntAlgText/">http://msenux.redwoods.edu/IntAlgText/</a> The text requires that you have the Acrobat Reader installed on your computer to access it.

Authors: Dave Arnold/Bruce Wagner et al

**OBJECTIVE**: Our primary goal will be to learn more of the language called algebra. Also, we will look at how and where algebra is used in the real world. By the end of this mathematics class you will have a higher level of confidence in your ability to solve problems. Mathematics is a powerful language that transcends culture and time. It is one of the two universal languages, music being the other. So, it is my sincere hope to get you excited about learning mathematics!

### **COURSE LEARNING OUTCOMES:**

What should the student be able to do as a result of taking this course? State some of the objectives in terms of specific, measurable student accomplishments.

- 1. Evaluate and interpret general functions symbolically, numerically, and graphically.
- 2. Produce an accurate graph of each function type introduced in the course, identifying and plotting all salient features.
- 3. Demonstrate appropriate use of technology in analyzing the behavior of functions presented in the course.
- 4. Use mathematical models to analyze and interpret real-world situations.
- 5. Use sound mathematical writing and appropriate use of symbolism in presenting solutions of mathematical exercises and applications.

### MATERIALS: You will need to obtain the following for this class:

- a) A scientific calculator with a graphing package. The **TI-83+ or TI-84** are recommended. Ask about our rental program if you don't own one.
- b) Lots of graph paper (cheap stuff will be fine).
- c) A ruler or straight edge.
- d) A binder to keep your notes and work in.
- e) a Comp Book (optional)

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. Cell Phones: If your cell phone rings during class or you text message, you will be asked to apologize to your colleagues. The manner in which you'll do this is by bringing cookies the next class session.

**HOMEWORK**: I will be assigning daily homework. Assignments will be posted to the MyCR and given in class. It is expected that you will have the assignment completed by the next class session. Each assignment has two parts: Pretty and Practice. The Pretty problems you are expected to show off your best work. I will grade these problems and assign the majority of the points value of the assignment to them (10 pnts). The Practice problems will be done partially in class. The remainder you should finish on your own prior to doing the polished pretty problems. **I cannot accept late homework.** If you were not able to complete the assignment, turn in what is finished for partial credit and then finish the remainder of the assignment.

If you miss class but had the homework completed, you can also see me in office hours to have it excused (you will be allowed a maximum of 5 excused assignments).

The homework is where you get to polish your math skills. It is not an option. The students who do well in my mathematics courses are the ones who are consistently on top of their homework. The fundamental idea of a college course is to learn something and the homework is where learning takes place. Part of these homework assignments will include the use of the calculator and computer.

## Specifics on how homework is to be presented:

- All homework is to be done in **pencil**.
- Sloppy work will not be accepted.
- Pages need to be **stapled**.
- Your Name, The Assignment Number and the Date must appear in the header of each assignment.
- If a **Graph** is required for assignment, it must be on **graph paper** to receive credit. We'll discuss the difference between a "graph" and a "sketch." Most students find it easier to just do all of there Pretty homework on graph paper.

**QUIZZES/ACTIVITIES**: We will be doing one quiz per week. Some of these will be in class any most will be outside of class using OPTIMATH. I will drop your lowest quiz score of the semester. We'll be doing group activities that also count as quizzes towards your final grade. If you miss an activity, you can make it up for half credit during office hours.

**OPPORTUNITIES**: I hate the name "exam" or "mid-term" for a major point gathering opportunity. You go to the doctor for an exam and midterms should occur in the middle of the semester. Instead I prefer to call these "Opportunities." That is what they are; an opportunity for you to show off what you have learned. We will have up to 4 Opportunities.

**FINAL:** there will be a final Opportunity that is only given on the scheduled day. Please make your travel arrangements accordingly.

ATTENDANCE: To succeed in a mathematics class you need to attend every class meeting. In this spirit, if you exceed 4 absences, your grade may be adjusted down by ½ of a letter grade. If you exceed 6 absences, you may be asked to repeat the course. If you have to miss class, make prior arrangements with a fellow student to get any notes or materials covered that day. You are responsible for the all material covered even if you don't attend class.

**GRADE SYSTEM**: Your final grade will be determined as follows

Homework 20%
Quizzes/Activities 20%
Opportunities 50%
Final Opportunity 10%

I use the plus/minus system for final grades. The grade break down is as follows.

A	93-100%	C	70-76.9%
A-	90-92.9%	D+	67-69.9%
B+	87-89.9%	D	63-66.9%

В	83-86.9%	D-	60-62.9%
В-	80-82.9%	F	0-59.9%
C+	77-79.9%		

**TUTORS AND MATH LAB**: There is free tutoring service available for this class. I highly recommend that you take advantage of it. The service is located in the library in the Academic Support Center (ASC). The Math Lab course Math 120L offers 0.5 to 1.0 units of credit to get assistance with your math skills. The class is in the ASC. I strongly recommend Math Lab. It has been very successful in helping students achieve their goals in mathematics. There is also free 24/7 online tutoring through MyCR.

**STUDY GROUPS:** There is nothing harder in my opinion than going through a mathematics class solo. You should start now to form study groups. This class and every math class you take require two hours of study for every hour lecture. That means you will need to put in a near 10 hours per week outside the classroom. If you do not have that amount of time to schedule to this class, you may want to reconsider taking it. Find someone in the class that you can work with and schedule regular hours during the week when you can get together and study. Math Lab is a great place to hold your study group.

**MYCR:** There is a MyCR setup that has additional material for you to use in this course. It is a work in progress, but it does contain all of the materials used in class. One of the nice resources on this web page is the PowerPoint slides I use in class. The printed version of the slides is a nice outline of what I plan to cover that day and is formatted to take notes on.