Syllabus for: Intermediate Algebra

Semester & Year:	Fall 2012
Course ID and Section Number:	Math 120-031891
Number of Credits/Units:	4
Day/Time:	MW 6:05 – 8:10 pm
Location:	PS 201
Instructor's Name:	Erik Kramer
Contact Information:	Office location and hours: PS 119D MWF 11:30 – 12:30 & MW 5:00 – 6:00 Phone: 476-4228 Email: erik-kramer@redwoods.edu

Course Description (catalog description as described in course outline):
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.

Student Learning Outcomes (as described in course outline) :

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://www.redwoods.edu/District/Board/New/Chapter5/Ap5500.pdf
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.

Math 120-E1891 (031891) Course Syllabus
Fall Semester 2012

1 Course Information

Lectures will be MW 6:05 - 8:10 pm in PS 208. There will be assigned homework each week, both from the text and using Optimath via the web. Group work in the form of collaborative exercises will occur regularly during class. There will be short chapter tests at the end of each chapter, a mid-term exam and a cumulative final.

Instructor Information:

Erik Kramer
PS 119D
476-4228
erik-kramer@redwoods.edu

Office Hours: MWF 11:30 am - 12:30 pm and MW 5:00 - 6:00 pm and by appointment. If you plan to come late to an office hour, please let me know so I don't wander off.

Text: *Intermediate Algebra*, available for free at http://msenux.redwoods.edu/IntAlgText/. A CD with the text will be provided to all students free of charge. A printed copy of the text can be purchased for a nominal price at the college bookstore.

Required Materials: You will need the following:

- A Graphing Calculator: a TI-83/84 is recommended
- Internet access where you study
- Graph paper
- Writing implements

2 Course Description

This is a course in intermediate algebra. A focal point of this class will be functions. Functions will be investigated graphically, numerically, symbolically, and verbally, as well as in real-world applications. Linear, quadratic, absolute value, polynomial, rational, radical, exponential, and logarithmic functions will be explored. Technology as a tool for understanding and working with functions will be integrated into this course.

Functions are more than a mathematical tool, but represent a way of thinking. The ideas behind functions go far deeper than the notation and rules studied in this class. I encourage

you, therefore, to look for the ideas behind the notation as much as you can in this class.
Course Outcomes: The course outcomes describe what a passing student should be able to do as a result of the skills and knowledge gained in this course.

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.

In order to meet the above outcomes, you will need to gain in both knowledge and skill. Simply having knowledge of the material presented in lectures and the textbook is generally insufficient to demonstrate the course outcomes. It is crucial that you also gain in skill. Skill is gained by practice, both during class, and outside class. It is safe to say that skill gained through practice represents well more than half of what you gain through taking this course. Therefore, it is imperative that you practice as much as possible by completing all out of class assignments. Furthermore, you are encouraged to do more practice on your own as needed to gain in skill and confidence with the material of any particular chapter.

Ground Rules:

1. **Lectures:** Students are expected to attend all the lectures. Pop quizzes could occur in any lecture. Group work that contributes to the course grade will also occur regularly. Students should not interrupt lectures unbidden. Questions should be kept pertinent to the material. Everyone in the class is expected to help maintain a respectful and safe learning environment.
2. **Homework & Optimath:** Only a few written homework problems for each section will be collected. The assigned problems are attached to this syllabus and include recommended practice problems in addition to the problems you are expected to turn in. Written problems will be turned in on the day of the chapter test. There will also be assignments through Optimath. Optimath is a web based system used by the CR math department for online assignments. It has assignments with problems that fit well with the course text. Optimath can be found at http://msenux.redwoods.edu/optimath . A demonstration of Optimath will occur in class before the first Optimath assignment. Optimath assignments for any given chapter should generally be completed before the chapter test day.
3. **Quizzes, Chapter Tests, & Exams:** All quizzes, chapter tests, and exams will be closed book and closed notes unless otherwise stated. Quizzes may or may not be announced. Chapter tests and the midterm exam will occur on the dates where they appear in the attached course schedule. The final exam will occur on the date and time specified by the published college finals schedule.

4. **Collaborative Exercises:** Group work will occur in the form of collaborative exercises. During a collaborative exercise you will be expected to form into groups. The groups will each be assigned a problem or problems to work on. A random member of the group will be selected to present the solution on the board, with the group's points based on the work put up on the board.

5. **Grading:** The breakdown of the course grade is shown in the following table.

Written Homework & Optimath	30%
Chapter Tests & Quizzes	30%
Midterm Exam	20%
Final Exam	20%

   In determining the final letter grade I reserve the right to use '+' and '-' modifiers to letter grades, but I generally use them sparingly. I furthermore reserve the right to drop you from the course for unsatisfactory learning progress, attendance, or course participation. Grades will be determined on traditional percent cutoffs at 10% increments. The cutoffs may be lowered at my discretion, but will not go up.

6. **Special Accommodations:** If you

   a. Need classroom or testing accommodations because of a disability

   b. Have emergency medical information to share with me

   c. Need special arrangements in case the building needs to be evacuated

   Please make an appointment with me as soon as possible. If you need testing accomodations, bring me the needed paperwork sufficiently ahead of time for arrangements to be made. Testing accomodations cannot be arranged retroactively, and prior scores cannot be adjusted.

7. **Electronics:** Cellular phones, pagers and other devices that may disrupt the class should be turned off. Exceptions for devices necessary to you should be cleared with me first.

8. **Cheating:** There will be zero tolerance for cheating on quizzes, tests, or exams. Suspicion of cheating can lead to zero credit for that exam. Multiple instances of cheating will prevent you from passing this course.