Syllabus for: Math 120 — Intermediate Algebra

Semester & Year:	Fall 2015
Course ID and Section Number:	MATH-120-E7983
Number of Credits/Units:	4
Day/Time:	MWF 11:40am-12:55pm
Location:	SC 210
Instructor's Name:	Miguel-Angel Manrique
Contact Information:	Office location and hours: SC 216G; T 12-1, W 10-11, appointment Phone: (707) 476 - 4351 Email: miguelangel-manrique@redwoods.edu

Course Description (catalog description as described in the 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. *Note: graphing calculator required. TI-83 or TI-84 recommended.*

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 accomodations: 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.

MATH-120, INTERMEDIATE ALGEBRA
COLLEGE OF THE REDWOODS
FALL 2015
SECTION E7983

Instructor: Miguel-Angel Manrique
Email: miguelangel-manrique@redwods.edu
Office: SG 216G
Office hours: T 12-1, W 10-11, and by appointment

Location: SC 210
Meeting times: MWF 11:40am-12:55pm
Textbook: *Intermediate Algebra* by the College of the Redwoods mathematics department
Prerequisite: Grade of "C" or better in Math 380, or passing score on the appropriate assessment exam.

1. Course Description

This course will cover the following topics

i. review of basic ideas in algebra
ii. functions
iii. linear functions
iv. absolute value functions
v. quadratic functions
vi. polynomial functions
vii. rational functions
viii. exponential and logarithmic functions
ix. radical functions

Generally speaking, we will discuss the above topics, emphasizing definitions, coherence, and precision. We will also discuss basic ideas in Number Theory as appropriate if time permits.

2. Expectations

Attendance: I will be taking attendance every class. If you miss more than six classes, you may, at my discretion, be dropped from the course. Anyone that is absent on the first class meeting will be dropped. If you are absent, it is up to you to find out what you missed: ask a classmate for notes, or look at your current homework sets. This should go without saying, but it is especially important that you not miss class.

In-class quizzes: To encourage punctual attendance, you will be asked to complete random in-class quizzes, at the beginning of our meeting time. These quizzes should take no longer than 5-10 minutes. These quizzes will take place at approximately 1/8 of our scheduled meetings and will be determined by a series of coin flips. If the event "Tails, Tails, Tails" occurs, we will have a quiz that day. One of these impromptu quizzes will be dropped at the end of the semester. No make-up quizzes will be given.

Homework: Homework in this course will be done in two parts: online problems done with Optimath, and also written problems. You will be getting one or two assignments per week to do on Optimath, and you will also get several problems from me each class day. Optimath due dates will be variable, but the written problems will be collected on Mondays and Thursdays. After you receive back your graded written homework, you will have the opportunity to resubmit your corrected assignment for full points. *Late homework will be accepted up to one class meeting late, with a* 20% *penalty on points earned. Resubmissions of late assignments will not be permitted.*

In my experience, students that earn the mark of "A" typically have at least $\approx 90\%$ of the homework points at the end of the semester. Moral: do your homework.

Examinations: There will be four mid-term exams and a final exam. All exams will be cumulative. No make-up exams will be given. In extreme cases, with substantial evidence, if you miss an exam I can base the exam portion of your grade on the exams you did take. You must inform me of your absence as soon as you know.

Conduct: I am generally a very calm person, but if you disrespect the learning environment, you will asked (told) to leave. If you make it difficult for others to pay attention by creating distractions, you will be asked to leave. Texting is fine, provided you do it *discretely and quickly*, but there is generally no need to be on your phone or laptop for extended periods of time. If you insist on having your phone or laptop out during class, I will pause class and you will be asked to apologize to your classmates.

3. Grades

In order to pass this class, you must pass the final. The figures below are not necessarily fixed—in case exams are difficult and scores are low, fewer points would be required for A, B, etc.

- A = *excellent.* This grade requires a lot of study time. You did excellent work throughout the semester and had an excellent understanding of the course material. 90%+
- B = *very good.* Your understanding was good but there were small gaps. $80 - 89\%$
- C = *passing.* Your understanding was okay but there were significant gaps. $70 - 79\%$
- D = *almost passing.* Your understanding of the course material was not enough to pass the class. $60 - 69\%$
- F = *clearly not passing.*

I will use the following grading scheme:

Impromptu quizzes: 5%
Optimath homework: 10%
Written homework: 10%
Exam 1: 10%
Exam 2: 10%
Exam 3: 10%
Exam 4: 10%
Final Exam: 35%

4. Available help

Personal help will be available in the Academic Support Center and from me. You are also highly encouraged to sign up for Math Lab (Math 120L). Math 120L is a lab course that offers 0.5 to 1.0 units of

credit to get assistance with your math skills. The lab is located in the Academic Support Center. If math has been a struggle for you in the past, or if you are in search of an "A" grade, then I strongly recommend Math 120L. It has been very successful in helping students achieve their goals in mathematics. See the Help page on the course web site for more details on help resources.

5. Use of calculators

A good graphing calculator is required. The recommended calculator for Math 120 is the TI-83+ or TI-84+. However, if you already have another good graphing calculator, then you may use that instead. If you don't have a graphing calculator, and don't wish to purchase one, there are a limited number of calculators available for rent from the Math Department for $20 per semester. If you are looking to purchase your own, I personally recommend looking on eBay for a used one. Note: you are shopping on eBay at your own risk!

6. Advice

Success in mathematics usually requires a large amount of work on your part. There are many definitions and ideas that you will be expected to know. You are highly encouraged to see me if you think you are struggling with the course. It is far better not to wait until the end of the semester for this!

Also, I think life will be easier if you get to know each other and form study groups. Indeed, learning mathematics by one's self can be quite difficult, but with a study group you will have a regular place for discussion and problem solving, and this will be good for everyone.

Of course, you are always welcome to talk to me! I have posted office hours, but if you see me walking around or in the office, please do ask questions if you have them—I am happy to help. *Remember: the study of mathematics usually goes better with a little help from others.*