Syllabus for Math 194 Intermediate Algebra – Eureka Campus

Semester & Year	Spring 2017	
Course ID and Section #	Math 194 E1093	
Instructor's Name	Robin Carter	
Day/Time	Monday, Wednesday, Friday 10:05AM-11:20AM	
Location	SC 202	
Number of Credits/Units	4	
Contact Information	*Office location*	
	Office hours	
	Phone number	
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Textbook Information	*Title & Edition*	*Intermediate Algebra Functions and Authentic Applications* 5th Edition or Chemekata version whichever is in the bookstore
	Author	Jay Lehman
	ISBN	ISBN-10: 0-321-86819-6 ISBN-13: 978-0-32186819-0 or ISBN-10: 1-256-0589-4 ISBN-13: 978-1-256-05839-7

Course Description

A course in which functions are investigated graphically, numerically, symbolically, and verbally in real-world settings with an emphasis on applications to social sciences and business. Linear, quadratic, polynomial, rational, exponential, and logarithmic equations and functions are explored as models of real-life applications. Data analysis and technology are integrated into all aspects of the course.
A graphing calculator is required; TI-83 or TI-84 recommended.

Prerequisite: MATH380 Elementary Algebra (or equivalent) with a grade of "C" or better, or appropriate score on the math placement exam.

Student Learning Outcomes

1. Apply mathematics to real-world problems and applications with an emphasis on social sciences and business.
2. Investigate the output from a graphing calculator to explore mathematical concepts and to verify work.
3 Explain the concept of a function to applications in business and social science.
4 Understand the limitations of a model to predict outcomes based on the concepts of domain and range.

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 at 707-476-4280.

Academic Support Academic support is available at Counseling and Advising and includes academic advising and educational planning, Academic Support Center for tutoring and proctored tests, and

Extended Opportunity Programs & Services, 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/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: www.redwoods.edu/district/board/new/chapter5/documents/AP5500StudentConductCodeandDisciplinaryProceduresrev1.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 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: www.redwoods.edu/district/board/new/chapter5/documents/AP5500StudentConductCodeandDisciplinaryProceduresrev1.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 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: (http://www.redwoods.edu/Eureka/campus-maps/EurekaMap_emergency.pdf). For more information on Public Safety, go to http://redwoods.edu/safety/ 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 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 at 707-476-4112 or security@redwoods.edu if you have any questions.

Attendance In algebra, each new concept is dependent upon a previous set of concepts. Thus, to really succeed in a math class, you need to attend every class meeting, because missing one class will

surely cause a hole in the sequence. But if you have to miss class, make arrangements with a fellow student beforehand to get any notes or materials covered that day. Remember, you are responsible to learn the material for each class period, even if you can't attend, but active class participation will contribute positively to your course grade, and increase your skill.

Check the course website on Canvas to keep up with class lecture materials.

It is the policy of the College of the Redwoods Math Department to exercise a "Faculty Withdrawal" for any student who has missed more than 15% of the class meeting time (prior to the drop deadline by the Friday of the tenth week of courses, due to the severely diminished likelihood of a successful outcome in the course.

If you are no longer attending class, it is your responsibility to drop the course. It is easy to do by logging in to WebAdvisor to Drop the course. Or you can always visit the CR Registration office and tell them you want to drop the course. That way, you will receive a W Withdraw rather than a failing grade.

Textbook *Intermediate Algebra Functions and Authentic Applications* 5th Editon by Jay Lehmann

or the Custom Chemeketa version whichever is in the bookstore.

It may come with a code for online access at MyMathLab.com.This is helpful, as there are videos and tutorials available, but necessary to complete and pass the course. If you get a used book and do not have a code, you will still be able to do the homework and pass the class using the book.

OPTIONAL E-text on MyMathLab.com. Register for an account with MyMathLab.com and then, access the Spring 2017 MATH194 Intermediate Algebra w/ Applications by signing up for our class carter08529.

Calculator A scientific calculator with a graphing package is required for the course.
The TI-83+ or TI-84 are HIGHLY recommended.

You can buy a used one at the pawn shope, or, you can also rent one for the semester for $15.

The Mathematics Department has a limited number of calculators that it rents to students each semester. There is a one-time, non-refundable fee of $15. To rent a calculator, please follow these steps:

1. Go see Betsy Buchanan in the Mathlab in the Academic Support Center in the Library. Ask her if there are any more calculators available.
2. If there still are calculators available, go to the Cashier's office in the Student Services Building (2nd Floor), pay the $15, then bring the receipt to Betsy Buchanan in the Math Lab (in the ASC). She will have you fill out the rental contract and give you a calculator.

Note that students will be charged a $100 replacement fee if the calculator is lost, damaged, or not returned for any reason at the end of the semester.

Assignments Homework is given each class. If you want to learn this topic of algebra, homework should be completed by the next class. Check your own answers in the back of the textbook where answers to the odd-numbered exercises are located.

Textbook exercises will not be scored. They are your practice to successfully complete the in-class activities, quizzes and tests.

Students who require more practice can do the odd-numbered textbook problems where answers are provided in the back of the section.

Doing homework in the Math Lab allows you to get help right when you need it. Please sign-up for Math Lab to access free on-demand help with homework problems. Information about Math Lab is at the end of this file.

Tests and Quizzes
There are two chapter specific midterms and and a cumulative final exam. Your lowest midterm exam score will dropped and replaced with the final exam score if the final exam score is greater. There are no make-up exams, so if you miss an exam for any reason, that is the score we will drop.

Midterm Exam 1 Linear Functions Chapters 1, 2
Midterm Exam 2 Exponential and Logarithmic Functions Chapters 4 and 5
Final Exam is cumulative including Chapters 7 and 8.
See Math 194 Schedule for approximate exam dates.

In class quizzes every other Wednesday (on even-numbered weeks). Group work in class occurs most classes.

I will drop your lowest couple of both quiz and activities scores. If you miss a quiz or activity, those will be the scores I drop.

Grade A course grade is assigned based your Assignment and Test scores

Activities and take-home work	25%
In-class Quizzes	25%
Midterm 1	15%
Midterm 2	15%
Final Exam	15%

In assigning course letter grades, the AP Slide will apply: Attitude and Participation will determine if borderline grades slide up or slide down.

CANVAS Instructional materials including links to textbook will be located on the Math 194 Canvas website. Find due dates and important course events in the calendar section.

Getting HELP Don't be shy about asking for help. There are FREE resources available.

Excellent tutors are located in the Academic Support Center located in the library. You need to check in
at the ASC desk and make an appointment to meet with a tutor. Private sessions are available for free.

Forming a study group with other students in your class is a great way to learn math. Helping each other
is important for when you verbalize the process, you really know whether you know it or not.

Math Lab Getting HELP There are free resources available for extra help. If you have questions,

please get help! There are many options, first and foremost is signing up for Math Lab, which gives you access to the walk-in math assistance center located in the back of the Learning Resource Center.

Sign-up for Math 194L: Math Tutoring Lab. Math Lab is a "class", so log-in to WebAdvisor and register for the 1-unit or 0.5-unit section. To receive the 1 unit of "credit" you must log 45 hours of documented attendance by the end of the semester (only 22.5 hours for 1/2-unit). This means you need to go to the Math Lab for at least 45 hours over the 15-week semester (final exam week is not counted). You can sign up for 0.5 -unit and change to 1-unit later if you choose to.

For math lab, you will sign a contract and complete a survey on study skills to get the credit for Math Lab. It is a Credit/No Credit course, i.e., so completing the requirements will give the math credit, but there is no grade for Math Lab.

Math 252: This is a non-credit alternate version of Math Lab. You get the same drop-in tutoring help, with the same hours, but this is -0- units and there is no time requirement.

GUID 145: There is a special section of GUID 145 that specifically helps students with strategies for prealgebra. It meets twice a week, so you would get small-group tutoring with others in the same class.

One-on-one Tutoring: Any CR student can sign up to privately meet with a tutor for free. Contact the Academic Support Center ASC. (You do not need to be registered in Math Lab for this.) There are tutors in special programs (for example at the Light Center, or through EOPS). Also, form study groups. You can contact classmates via discussion forums or email. Forming a study group with other students in your class is a great way to learn math. Helping each other is important as when you verbalize the process, you really know whether you know it or not.

Skills You Will Learn:

1. Solving Linear Equations
- **Graphing Linear Equations**
- **Finding and interpreting the slope of a line**
- **Evaluating linear functions**
- **Solving linear inequalities**
- **Finding domain and range of linear functions**
- **Modeling with linear functions.**

2. Use a Graphing Calculator
- **To graph a function**
- **To adjust the viewing window, trace, find intersections, zeros, and extrema**
- **To generate a table**
- **To enter data and calculate regression curves**
- **To approximate solutions to equations and inequalities.**

3. Linear Regression
- **Using lines to model data**
- **Finding the line of best fit**
- **Interpolating and extrapolating using linear functions.**

4. Exponential Functions
- **Using the laws of exponents**
- **Using the properties of exponential functions including domain and range**
- **Using and interpreting rational exponents**
- **Graphing exponential functions**
- **Modeling with exponential functions.**

5. Logarithmic Functions
- **Finding the inverse functions**
- **Using the properties of logarithmic functions**
- **Using the laws of logarithms with exponential models to make predictions**
- **Exploring the use of natural logarithms.**

6. Polynomials
- **Investigating the properties of polynomials**
- **Factoring polynomials with applications to the real world**
- **Using factored form to solve polynomial equations.**

7. Quadratic Functions
- **Graphing in vertex form**
- **Graphing in standard form**
- **Using the quadratic formula to solve equations**
- **Finding and interpreting quadratic models.**

8. Rational Functions
- **Finding the domains of rational functions**
- **Graphing basic rational functions**

College of the Redwoods Math194 Intermediate Algebra E1093 – Spring 2017

Week#	Mon	Tuesday	Wed	Thursday	Friday
1	Jan 16 CR Holiday (MLK Jr)	Jan 17 CR Math Classes begin	Jan 18 Introductions and Chapter 1	Jan 19	Jan 20 1.2 Graphing Linear Equations
2	Jan 23 1.3 Slope of a Line	Jan 24	Jan 25 1.4 Meaning of Slope for Equations Graps and Tables Quiz	Jan 26	Jan 27 Last Day to Drop w/o "W" and rec'v refund 1.5 Finding Linear Equations
3	Jan 30 CENSUS DAY 1.6 Functions Chapter 2	Jan 31	Feb 1 2.1 Lines to Model Data	Feb 2	Feb 3 2.2 Finding Equations of Linear Models
4	Feb 6 2.3 Function Notation and Making Predictions	Feb 7	Feb 8 2.4 Slope Is a Rate of Change Quiz	Feb 9 Last Day to file P/NP option (if available)	Feb 10 Review
5	Feb 13 Test on Chapters 1 and 2 Linear functions	Feb 14	Feb 15 Return tests	Feb 16	Feb 17 No CR Classes (Lincoln's BD)
6	Feb 20 CR Holiday (Wash.)	Feb 21	Feb 22 4.1 Properties of Exponents / Quiz	Feb 23	Feb 24 4.2 Rational Exponents
7	Feb 27 4.3 Graphing Exponential Functions	Feb 28	Mar 1 4.4 Finding Equations of Exponential Functions	Mar 2	Mar 3 4.5 Using Exponential Functions to Model Dat
8	Mar 6 5.1 Composite Functions	Mar 7	Mar 8 5.2 Inverse Functions / Quiz	Mar 9	Mar 10 5.3 Logarithmic Functions
CR/HSU Spr Brk	Mar 13	Mar 14 ***π Day!***	Mar 15	Mar 16	Mar 17
9	Mar 20 5.4 Properties of Logarithms	Mar 21	Mar 22 5.5 Using the Power Property with Exponential Models	Mar 23	Mar 24 5.6 More Properties of Logarithms
10	Mar 27 5.7 Natural Logarithms	Mar 28	Mar 29 Review / Quiz	Mar 30	Mar 31 Last Day for Student-Init'd WDrawal Faculty WD Test on Chapters 4 and 5
11	Apr 3 7.1 Graphin Quadratic Function in Vertex Form	Apr 4	Apr 5 7.2 Graphing Quadratic Function in Standard Form	Apr 6	Apr 7 7.3 Using the Square Root Property to Solve Quadratic Equations
12	Apr 10 7.4 Soving Quadratic Equation by Completing the Square	Apr 11	Apr 12 7.5 Using the Quadratic Formula to Solve Quadratic Equations / Quiz	Apr 13	Apr 14 7.7 Finding Quadratic Models
13	Apr 17 7.8 Modeling with Quadratic Functio	Apr 18	Apr 19 Chapter 8	Apr 20	Apr 21 8.2
14	Apr 24 8.3	Apr 25	Apr 26 8.4 / Quiz	Apr 27	Apr 28 8.5

15	May 1	May 2	May 3 *Review for Final Exam*	May 4	May 5 *Review for Final Exam*		
R/HSU FINAL WEEK	May 8	May 9	May 10	May 11	May 12	May 13 ommen	