# MATH-120-E8385
# Intermediate Algebra

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| **Semester & Year:** | Fall 2015 |
| **Course ID and Section Number:** | MATH – 120 – E8385 |
| **Number of Credits/Units:** | 4 units |
| **Day/Time:** | T TH 4:30 – 6:35 PM |
| **Location:** | SC210 |
| **Instructor's Name:** | Mr. Jon Pace |
| **Contact Information:** | Office hours: M W 5:00 – 6:00 PM room TBD<br><br>In Math Lab M W 4:00 – 5:00 PM<br><br>Email: jonothan-pace@redwoods.edu<br>or via Canvas |

**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.

## * 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 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.

**College of the Redwoods Emergence Preparedness Plan:**

http://inside.redwoods.edu/safety/documents/EmergencyPreparedness-EntirePlan1-4-2013.pdf

During an evacuation:

· Be aware of all marked exits from your area and building. Know the routes from your work area to the nearest exits.

· 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. (Be aware CR's lower parking lot and 101 frontage are within the Tsunami Zone).

# * I reserve the right to change this syllabus at any time.

## Course Prerequisites

A grade of "C" or better in Math 380 (Elementary Algebra) or equivalent or appropriate score on the math placement exam.

**Representative skills without which the student would be highly unlikely to succeed:** Ability to use the properties of real numbers to solve linear equations and inequalities, draw, read, and interpret graphs, and find the equations of lines. **A complete proficiency in adding, subtracting, multiplying, and dividing fractions**. Ability to correctly manipulate polynomial expressions, including factoring. Familiarity with graphing calculators helpful.

## Text

The Intermediate Algebra textbook is also available online at:
http://msenux2.redwoods.edu/IntAlgText/

You will need Adobe Acrobat Reader to read the book. Go to http://get.adobe.com/reader/ if you need to download Acrobat Reader. It is important that you have the most current version of the Acrobat Reader that your system will allow.

Print versions are available in two volumes at:

Part 1($18): http://www.lulu.com/shop/david-arnold/intermediate-algebra-text/paperback/product-20720788.html

Part 2 ($15): http://www.lulu.com/shop/david-arnold/intermediate-algebra-text-part-ii/paperback/product-20720776.html

About 38 copies are available for semester long check-out at the library and at least 2 copies will be available to check-out for 2 hour increments throughout the semester.

## Resources Required:

1. Pencils and erasers **(pens may not be used in this class)**.
2. Ruler or straightedge.
3. **Graphing calculator.**
4. Graph Paper.

**Recommended**

1. Math Lab
2. I would recommend forming study groups. They are a great way to study for exams and do homework problems.
3. The Math 120 course page: http://msenux2.redwoods.edu/mathdept/courses/math120.php
4. Math 120 movies: http://msenux2.redwoods.edu/IntAlgMovies/

**Classroom Environment**

It is essential to our class that both students and teacher behave in a manner that will provide a comfortable learning atmosphere. Be respectful of one another. Any rude or derogatory comments will be dealt with quickly and severely. We are all adults and an open, comfortable environment is crucial for learning. Therefore, you should not hesitate to ask any questions or feel embarrassed to ask any question or seek for help. **Turn off cell phones before entering the classroom**.

**Exams**

There will be 4 in-class exams each worth 10% and a cumulative final exam worth 20% of your final grade respectively. I will notify you at least one week in advance as to the date of each exam. Before each exam, you will receive a study guide and practice exam/problems. All exams need to be taken in class on the day of the exam. There will be no make-ups on any exam. **The final exam must be taken on the scheduled day and time, no exceptions.**

# Final Exam: Thursday, Dec. 10th @ 3:15 – 5:15PM

**Homework**

Written homework will be assigned for each section and is due at the beginning of each week for the sections covered the previous week (see course schedule). **Homework for each section will be turned in separately.** See the homework guidelines at the end of this syllabus. Your 3 lowest homework scores throughout the semester are dropped.

**NO LATE HOMEWORK ALLOWED WITHOUT DOCTOR'S NOTE, PERIOD!**

Optimath: Practice assignments will be available for each section on Optimath. This is one of your most valuable resources.

## Quizzes

A weekly quiz will be posted on OPTIMATH at the beginning of each week. You will have 1 week to complete the quiz with unlimited attempts. No extensions will be granted without a signed doctor's note.

A short in-class quiz will be given every Thursday at the beginning of class. You must be present to take the quiz and no make-up quizzes will be given. Be on time!

## Calculator Use

A good graphing calculator is required for this course. The calculator must be able to plot graphs of functions and solve equations numerically. The TI-83 + or TI-84+ is an excellent, easy-to-use calculator which meets these requirements and are the standard calculators used in other math classes at College of the Redwoods. However, if you already have a good graphing calculator that meets the above requirements you may use that one. If you don't have a graphing calculator and don't wish to purchase one, you may rent one from the Math Department for $25 a semester.

## Grades

Your final grade will be determined as follows:

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| Homework: | 25 % |
| Quizzes: | 20 % |
| Exams: | 40 % |
| Final Exam: | 15 % |

The grade breakdown is as follows:

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| A | 93 - 100% | C+ | 77 - 79% |
| A- | 90 - 92% | C | 70 - 76% |
| B+ | 87 - 89% | D | 60 - 69% |
| B | 83 - 86% | F | 0 - 59% |
| B- | 80 - 82% | | |

**Mathematics Department Policy Regarding "Faculty Withdrawal" of Students after Census Day**

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), due to the severely diminished likelihood of a successful outcome in the course. It is important to note that, if it is the student's intention to withdraw from the course, the responsibility remains with the student to ensure the proper paperwork has been filed – that is, students are not to assume the teacher will file the "Withdrawal" automatically.

**Guidelines for Homework**

Please adhere to the following guidelines before turning in your homework assignments:

1. STAPLE HOMEWORK IN THE UPPER LEFT-HAND CORNER.
2. Label your homework with your name, section number, and due date in the upper right hand corner.
3. Box your answers to each exercise.
4. You must use pencil when writing your homework and your work must be written legibly and neatly.
5. You must line up "=" working DOWN THE PAGE.
6. Be sure to show all your work when solving a problem. A problem with just the answer and no work shown will not receive any points.
7. **When creating a graph, you must use graph paper and a ruler or straight edge. When graphing, make sure that you label your axes and scale or points will be taken off.**

- **I reserve the right to change this syllabus at any time as I see fit.**

# Course Schedule: Math 120, Fall 2015

| Date | Topics | Homework Due |
|---|---|---|
| **Week 1** | | |
| Tue – Aug. 25th | Class Intro, Fractions | Tuesday, Sept. 1st |
| Thu – Aug. 27th | Sections 1.1, 1.2 | |
| **Week 2** | | |
| Tue – Sept. 1st | Sections 1.3, 1.4 | Tuesday, Sept. 8th |
| Thu – Sept. 3rd | Sections 1.4, 2.1 | |
| **Week 3** | | |
| Tue – Sept. 8th | Sections 2.2, 2.3 | Tuesday, Sept. 15th |
| Thu – Sept. 10th | Sections 2.3, 2.4 | |
| **Week 4** | | |
| Tue - Sept. 15th | Sections 2.5, 2.6 | Tuesday, Sept. 22nd |
| Thu – Sept. 17th | Transformation Practice, *Exam 1 review* | |
| **Week 5** | | |
| Tue – Sept. 22nd | **Exam 1,** section 3.1 | Tuesday, Sept. 29th |
| Thu – Sept. 24th | Sections 3.2, 3.3 | |
| **Week 6** | | |
| Tue – Sept. 29th | Sections 3.4, 3.5 | Tuesday, Oct. 6th |
| Thu – Oct. 1st | Sections 3.5, 5.1 | |
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| Date | Topics | Homework Due |
|---|---|---|
| **Week 7** | | |
| Tue – Oct. 6th | Sections 5.2, 5.3 | Tuesday, Oct. 13th |
| Thu – Oct. 8th | Sections 5.3, 5.4 | |
| **Week 8** | | |
| Tue – Oct. 13th | Section 5.6,<br>*Exam 2 review* | Tuesday, Oct. 20th |
| Thu – Oct. 15th | **Exam 2**, Section 6.1 | |

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| **Week 9** | | |
| Tue – Oct. 20th | Sections 6.2, 7.1 | Tuesday, Oct. 27th |
| Thu – Oct. 22nd | Sections 7.2, 7.3 | |
| **Week 10** | | |
| Tue – Oct. 27th | Sections 7.4, 7.5 | Tuesday, Nov. 3rd |
| Thu – Oct. 29th | Sections 7.6, 7.7 | |
| **Week 11** | | |
| Tue – Nov. 3rd | Section 7.8,<br>**Exam 3: Take-home** | Tuesday, Nov. 10th |
| Thu – Nov. 5th | Sections 8.1, 8.2 | |
| **Week 12** | | |
| Tue – Nov. 10th | Sections 8.2, 8.3 | Tuesday, Nov. 17th |
| Thu – Nov. 12th | Sections 8.3, 8.4 | |
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| Date | Topics | Homework Due |
|---|---|---|
| **Week 13** | | |
| Tue – Nov. 17th | Sections 8.5, 8.6 | Tuesday, Nov. 24th |
| Thu – Nov. 19th | Sections 8.6, 8.7 | |
| **Week 14** | | |
| Tue – Nov. 24th | Sections 9.1, 9.2 | Tuesday, Nov. 29th |
| Thu – Nov. 26th | *No class: Thanksgiving* | |
| **Week 15** | | |
| Tue – Nov. 29th | Sections 9.4, 9.5<br>**Exam 4: Take-home** | |
| Thu – Dec. 3rd | *Final Exam Review* | |
| **Finals Week** | | |
| Dec. 10th | **Final Exam**<br>**Monday, Dec. 10th 3:15 – 5:30 PM** | |

*** I reserve the right to change this schedule at any time ***