# Math 114-13 CRN 24185 Intermediate Algebra Fall 2017

MTWThF 11:30 am – 12:20 pm MLC 270 Instructor: Gayathri Chakravarthy

Contact Information: Email is the best way to reach me.

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Office Hours: MTWThF 1:30 pm - 2:00 pm

**Location: Math and Science Resource Center (S43)** 

**Course Description:** Application of exponential and logarithmic functions, rational functions, and sequences and series to problems. Emphasis on the development of models of real world applications and interpretation of their characteristics.

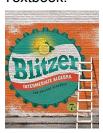
**Prerequisite:** Completion of Math 212 with a grade of C, or equivalent, or qualifying score on the Placement Test within the last calendar year.

### **Student Learning Outcomes:**

- 1. Evaluate real-world situations and distinguish between and apply exponential logarithmic, rational, and discrete function models appropriately
- 2. Analyze, interpret, and communicate results of exponential, logarithmic, rational, and discrete models in a logical manner from four points of view visual, formula, numerical, and written.

#### Required materials:

Textbook:



- 1. Intermediate Algebra for College Students, 7th Edition Author: Blitzer (sold in the De Anza College Bookstore) Textbook ISBN-13: 9780134178943
- 2. A Scientific Calculator is required
- 3. Wiring material: pen, pencil, paper

#### Grading

#### 1. Homework:

Proficiency in mathematics comes only with frequent practice. Attending classes and completing homework assignments on time is very important in accomplishing this goal. You should plan to set aside 90 minutes of doing homework for every hour in class. Homework will primarily come from the textbook (there is no online homework for this class). I will not collect your homework every day. However, on the two mid-term exam days you need to bring all of your homework with you to class. I will not accept late homework. Make sure your homework is stapled. You must begin a new section on a fresh page. If you turn in the wrong homework assignment, then you will receive a zero for that assignment. It is your responsibility to make sure that you are organized and turn in the correct homework assignment. I will spend a few minutes at the beginning of class answering questions, if any, about homework problems.

- **2. Friday Quiz:**There will be a short quiz at the end of class each Friday (see tentative course schedule below) based on the homework assignments and class discussions for the week. Weeks for which a midterm has been scheduled will not have a quiz. If you have done all of the homework, attended class and paid attention, you will be very well prepared. No make-ups for quizzes. You will have 6 guizzes. The best 5 scores out of 6 will be considered.
- **3. Exams:** There will be two midterm exams (see tentative schedule below for dates). I do not give make-up exams. If you miss an exam, you will be permitted to replace the zero you received on one midterm exam by your final exam grade on a percentage equivalent basis.
- **4. Final Exam:** This is scheduled for Monday December 11th. All exams will cover material discussed in class and the textbook. The final exam must be taken to receive a grade for the course. The final will be a comprehensive exam. It will be closed-book, closed-note. Scientific calculators only.
- **5.** Attendance and Academic Etiquette: Attendance is mandatory for this class. You will be given 20 points for attendance and academic etiquette for this course. These 20 points make up 5% of your overall grade. Students will lose one point for each unexcused absence and half of a point for a tardy (late by 5 or more minutes after class begins) or for leaving 5 or more minutes before class is excused. If you are have a valid excuse for why you are unable to attend class on a particular day, then you need to email me stating the reason for why you are absent, and based upon your email, I will decide if your absence is considered to be excused or not. Cell phones, computers, and any other devices are not allowed during class. If you are using one of these devices during class, then you will lose one point for each time that I see you using one of these devices. Disruptive behavior will not be tolerated. If you are being disruptive and talking to another student during class, then you will lose a point for each incident.

#### **Point Distribution**

- i. Midterms: 100 Points (2 x 50 points each)
- ii. Quizzes 100 Points (5 x 20 points each)
- iii. Homework 80 Points
- iv. Final 200 Points
- v. Attendance and academic etiquette 20 points

**Warm-Ups:** A warm-up problem will be given almost everyday. I will post one problem on the board and have you work on it when you enter class. I will walk around the class to observe how everyone is tackling the problem and to provide help.

**Academic Integrity:** Cheating will not be tolerated and will result in a grade of 0 for the assignment, quiz or exam and referral to the dean for academic discipline. Cheating includes, but is not limited to: copying from other students, permitting other students to copy from you, plagiarism, submitting work that isn't your own, using notes that don't meet permitted specifications, continuing to write/erase on an exam/quiz after permitted time has ended, changing your exam/quiz paper after it's been graded and then requesting a grading correction.

**Student Conduct**: A student who is disruptive will be asked to leave the class. A student who refuses to leave the room will be dropped from the class and will be reported for further action. Cell phones must be silenced and put away.

**Tutoring.** The Math and Science Tutorial Center in Room S43 offers free tutoring on Monday –Thursday from 9:00 am – 5:30 pm and Friday 9:00 am – 12:00 noon. More information can be found here: http://www.deanza.edu/studentsuccess/mstrc/

**Disability Statement:** De Anza College makes reasonable accommodations for people with documented disabilities. Please notify Disability Support Services (DSS) if you have any physical, psychological or other disabilities, vision, hearing impairments or ADD/ADHD. DSS is located in the student community services building, room 141. Phone number: 408-864-8753.

#### **Grade Boundary:**

| A: 93 – 100% | <b>A</b> -: 90 – 92% |                      |  |
|--------------|----------------------|----------------------|--|
| B+: 87 - 89% | B: 83 - 86%          | <b>B-</b> : 80 – 82% |  |
| C+: 76 - 79% | <b>C</b> : 70 – 75%  |                      |  |
| D+: 67 - 69% | D: 63 - 66%          | <b>D-</b> : 60 – 62% |  |
| F < 60%      |                      |                      |  |

### Sections to cover:

| Section | Title  |  |  |  |  |  |
|---------|--|--|--|--|--|--|
| 1.6     | Properties of Integral Exponents   |  |  |  |  |  |
| 1.7     | Scientific Notation  |  |  |  |  |  |
| 3.3     | Systems of Linear Equations in Three Variables                           |  |  |  |  |  |
| 4.1     | Solving Linear Inequalities  |  |  |  |  |  |
| 4.2     | Compound Inequalities  |  |  |  |  |  |
| 4.3     | Equations and Inequalities Involving Absolute Value                      |  |  |  |  |  |
| 5.6     | A General Factoring Strategy   |  |  |  |  |  |
| 6.1     | Rational Expressions and Functions: Multiplying and Dividing             |  |  |  |  |  |
| 6.2     | Adding and Subtracting Rational Expressions                              |  |  |  |  |  |
| 6.3     | Complex Rational Expressions   |  |  |  |  |  |
| 6.4     | Division of Polynomials  |  |  |  |  |  |
| 6.6     | Rational Equations   |  |  |  |  |  |
| 6.7     | Formulas and Applications of Rational Equations                          |  |  |  |  |  |
| 6.8     | Modeling Using Variation   |  |  |  |  |  |
| 7.1     | Radical Expressions and Functions  |  |  |  |  |  |
| 7.2     | Rational Exponents   |  |  |  |  |  |
| 7.3     | Multiplying and Simplifying Radical Expressions                          |  |  |  |  |  |
| 7.4     | Adding, Subtracting and Dividing Radical Expressions                     |  |  |  |  |  |
| 7.5     | Multiplying with More Than One Term and Rationalizing the<br>Denominator |  |  |  |  |  |
| 7.6     | Radical Equations  |  |  |  |  |  |
| 9.1     | Exponential Functions  |  |  |  |  |  |
| 9.2     | Composite and Inverse Functions  |  |  |  |  |  |
| 9.3     | Logarithmic Functions  |  |  |  |  |  |
| 9.4     | Properties of Logarithms   |  |  |  |  |  |

| 9.5  | Exponential and Logarithmic Equations       |  |  |  |  |
|------|---|--|--|--|--|
| 9.6  | Exponential Growth and Decay; Modeling Data |  |  |  |  |
| 10.1 | Distance and Midpoint Formulas; Circles     |  |  |  |  |
| 11.1 | Sequences and Summation Notation            |  |  |  |  |
| 11.2 | Arithmetic Sequences                        |  |  |  |  |
| 11.3 | Geometric Sequences and Series              |  |  |  |  |

# Tentative Schedule Fall 2017 Intermediate Algebra

|                              | Monday         | Tuesday                   | Wednesday       | Thursday                | Friday                   |
|------------------------------|----------------|---------------------------|-----------------|-------------------------|--------------------------|
| Week 1<br>September          | 25<br>1.6      | 26<br>1.6                 | 1.6, 1.7        | 1.7                     | 29<br>Quiz 1             |
| Week 2<br>October            | 2              | 3.3, 4.1                  | 4.1, 4.2        | 5<br>4.2, 4.3           | 6<br>Quiz 2              |
| Week 3<br>October            | 5.6            | <b>10</b> 5.6             | 5.6             | <b>12</b> 6.1           | 13<br>Quiz 3             |
| Week 4<br>October            | 6.1            | 6.2                       | 6.2, 6.3        | 19<br>Review            | 20<br>Midterm 1          |
| Week 5<br>October            | <b>23</b> 6.3  | 6.4                       | <b>25</b> 6.4   | 6.6                     | <b>27</b> 6.7            |
| Week 6<br>October/November   | 6.7, 6.8       | 6.8                       | 7.1             | 7.2                     | 3<br><mark>Quiz</mark> 4 |
| Week 7<br>November           | 7.3            | 7.4                       | 7.5             | 9<br>7.6                | 10<br>Veterans<br>Day    |
| Week 8<br>November           | 7.6            | 14<br><mark>Quiz</mark> 5 | 9.1             | 9.2                     | 9.3                      |
| Week 9<br>November           | 9.3            | 21<br>Review              | 22<br>Midterm 2 | 23<br>Thanksgivi<br>Rec | 24<br>ng Holiday<br>cess |
| Week 10<br>November/December | 9.4            | <b>28</b><br>9.5          | 9.6             | <b>30</b><br>9.6        | 1<br>Quiz 6              |
| Week 11<br>March             | 10.1           | 5<br>11.1                 | 11.2            | 11.3                    | 8<br>Final<br>Review     |
| Week 12<br>March             | 11<br>Final Ex | 12<br>am Week             | 13              | 14                      | 15                       |

### **Important Dates**

(1) Sunday Oct. 8: Last day to drop (2) Friday October 20: Last day to request pass/no pass (3) Fri Nov 17: Last day to drop with a W (withdraw) (4) Mon Dec. 11, Final Exam