Math 114 Intermediate Algebra Spring 2016

Section 04 CRN 01256 MTWThF 8:30 am – 9:20 am E36

Instructor: Greg Stachnick

**Contact Information:** 

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**Phone:** 408-857-6421

**Office Hours:** 

Tuesday 10:30 am - 11:30 amWednesday 10:30 am - 11:30 am

Or by appointment

Location: Math and Science Tutorial 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.

#### Textbook:



- 1. Intermediate Algebra for College Students, De Anza Custom 2<sup>nd</sup> Edition By Blitzer (sold in the De Anza College Bookstore)
- 2. Student Access Code to MyMathLab (Required)
- 3. A Scientific Calculator is recommended (i.e. TI-30XIIS)

The Student Access Code to MyMathLab includes an eBook. Purchase of the hardcopy textbook is optional. For compatibility reasons, this Student Access Code must be purchased from the De Anza bookstore or from the Pearson website for MyMathLab.

#### **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.

#### Grading

1. **Homework:** Homework will be done in MyMathLab. The MyMathLab Course ID and specific registration instructions will be provided separately. Proficiency in mathematics comes with frequent practice. Attending classes and completing homework assignments on time is very important in accomplishing this goal.

- 2. **Quizzes:** Wednesday is Quiz Day. There will be a short quiz each Wednesday (see tentative course schedule below) based on the homework assignments for the week. Weeks for which a midterm has been scheduled will not have quizzes. If you have done all of the homework, you will be very well prepared. The lowest two quiz grades will be discarded (best five out of seven).
- 3. Exams: There will be three midterms and a cumulative final (see schedule below for dates).
- 4. **Projects:** There will be in class opportunities for extra credit, stay tuned and be there.

#### 5. Point Distribution

i. Midterms: 300 Points (100 points each)ii. Quizzes 100 Points (Best 5, 20 points each)

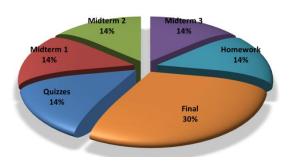
iii. Homework 100 Points iv. Final 200 Points

**Point Distribution** 

#### 6. Letter Grade Breakdown

A. 100% - 90% B. 89% - 80% C. 79% - 70% D. 69% - 60%

F. 59% or below



#### **Additional Resources**

**Free Tutoring:** The Math and Science Tutorial Center in Room S34 offers free tutoring on Mondays-Thursdays from 9:00 AM-5:30 PM and Fridays 9:00 Am – 12:00 noon. More information can be found here: http://www.deanza.edu/studentsuccess/mstrc/

**Supplemental Resources:** Search the web for specific class topics. You will find lots of completed problems, additional written and video explanations and some very clever YouTube videos: <a href="http://justmathtutoring.com/page17.html">http://justmathtutoring.com/page17.html</a>

#### **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. For more information about De Anza College's policy on academic integrity see: <a href="https://www.deanza.edu/studenthandbook/academic-integrity.html">https://www.deanza.edu/studenthandbook/academic-integrity.html</a>

#### **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 stowed away.

#### Attendance:

Regular class attendance is expected. Registered students missing any day the first week, without first notifying the instructor will be dropped from the course. After the first week, a student may be dropped from the class if she/he is absent three times, without first notifying the instructor. If you miss a quiz because you skipped class you will receive a zero for that assignment. Dropping or withdrawal from the class due to hardship is the students' responsibility. A student who stops coming to class and does not drop will receive an "F" grade. It is the students' responsibility to inform the instructor if she/he is going to be absent and is responsible for any material covered/announcements made on the day of the absence.

#### **Communication:**

Course Studio will be used for communication of announcements. It will be important to login to MyPortal at least daily to check for new course information regarding extra credit assignments, quizzes and examinations. Class lecture notes will also be published on Course Studio. To access Course Studio, login to MyPortal and select the Students tab. Scroll to the bottom of the page and you will see the Course Studio pane on the lower right. Then select the entry for this course to see announcements, reference links and inspect files.

Any student email correspondence with the instructor should include the course number and section number (i.e. Math 114.03) in the subject line.

#### **Blitzer Chapter and Section Outline**

#### Chapter 1 - Algebra, Mathematical Models, and Problem Solving

- 1.6 Properties of Exponents
- 1.7 Scientific Notation

### Chapter 4 - Inequalities and Problem Solving

- 4.1 Linear Inequalities
- 4.2 Compound Inequalities
- 4.3 Equations and Inequalities Involving Absolute Value

#### Chapter 5 – Polynomials, Polynomial Functions, and Factoring

- 5.5 Factoring Special Forms
- 5.6 A General Factoring Strategy

#### **Chapter 6 – Rational Expressions, Functions, and Equations**

- 6.1 Rational Expressions and Functions Multiplying & Dividing
- 6.2 Adding & Subtracting Rational Expressions
- 6.3 Complex Rational Expressions
- 6.4 Division of Polynomials by a Monomial
- 6.6 Rational Equations
- 6.7 Formulas and Application of Rational Equations

Time in Motion Problems

Work Problems

6.8 Modeling Using Variations

#### Chapter 7 – Radicals, Radical Functions, and Rational Exponents

- 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 Rationalizing the Denominator and Multiplying by More Than One Term
- 7.6 Radical Equations

#### **Chapter 9 - Exponential Functions and Logarithmic Functions**

- 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

#### **Chapter 10 - Conic Sections and Systems of Nonlinear Equations**

10.1 Distance and Midpoint Formulas; Circles

#### Chapter 11 – Sequences, Series, and the Binomial Theorem

- 11.1 Sequences and Summation Notation
- 11.2 Arithmetic Sequences
- 11.3 Geometric Sequences and Series

# **Tentative Spring Class Schedule Math 114.04 Intermediate Algebra**

	Monday	Tuesday	Wednesday	Thursday	Friday
Week 1 April	<b>4</b> 1.6, 1.7	<b>5</b> 4.1-4.3	5.6 Quiz 1	<b>7</b> 5.6	5.6
Week 2 April	<b>11</b> 6.1	<b>12</b> 6.1	6.2 Quiz 2	<b>14</b> 6.2	<b>15</b> 6.3
Week 3 April	<b>18</b> 6.4	6.6	6.6 Quiz 3	<b>21</b> 6.7	6.7
Week 4 April	<b>25</b> 6.8	26 Review	27 Midterm 1	<b>28</b> 7.1	7.2
Week 5 May	7.3	<b>3</b> 7.3	7.4 Quiz 4	7.4	7.5
Week 6 May	7.5	7.5, 7.6	7.6 Quiz 5	7.6	9.2
Week 7 May	9.2	17 Review	18 Midterm 2	9.1	9.3
Week 8 May	9.3	<b>24</b> 9.4	9.4 Quiz 6	<b>26</b> 9.5	9.5
Week 9 May/june	<b>30</b> 9.6	<b>31</b> 9.6	9.6	2 Review	3 Midterm 3
Week 10 June	10.1	<b>7</b> 10.1	8 11.1 Quiz 7	9 11.2	11.2
Week 11 June	13 11.3	14 11.3	15 Final Review	16 Final Review	17 Final Review
Week 12 June	20	21	Final Exam 7:00 - 9:00am	23 <mark>Final Exam</mark>	Week

#### **Important Dates:**

Monday, April 4:: First day of Spring Quarter 2016

**Saturday, April 16**:: Last day to add quarter-length classes. *Add date is enforced*.

**Sunday, April 17** :: Last day to <u>drop</u> for a full <u>refund or credit</u> for all students (quarter-length classes only). Refund deadlines for all non quarter-length classes are in MyPortal, "View Your Class Schedule" link. *Drop date is enforced*.

**Sunday, April 17** :: Last day to drop a class with no record of grade. *Drop date is enforced*.

**Friday, April 29** :: Last day to <u>request pass/no pass</u> grade. *Request date is enforced*.

Friday, May 27:: Last day to drop with a "W." Withdraw date is enforced.

**Saturday - Monday, May 28-30** :: Memorial Day Weekend (no classes)

Saturday - Friday, June 18-24 :: Spring Final Exams

Friday, June 24:: Last day to file for a spring degree or certificate

Friday, June 24 :: Last day of Spring Quarter

Saturday, June 25 :: Commencement Ceremony

Monday, June 27 :: First day of Summer Session