# Fall 2016--INTERMEDIATE-ALGEBRA- Math 114.63 : MW 6:30 pm – 8.45 pm

Instructor: Mrs. Nirmala Janak Class-Room: G-2 Course Description: Office Hours: M & W : 3 - 4 pm Room: E-37 e-mail: janaknirmala@fhda.edu

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.

**<u>Course Text</u>** : Intermediate Algebra for college students, 5<sup>th</sup> edition, by Blitzer, published by Pearson Education, 2009.

(CHAPTERS: (Chapters 1, 4, 6, 7, 9, 10, 11 from the text book) (Blitzer)

#### Student Learning Outcomes: (SLO's)

Evaluate real-world situations and distinguish between and apply exponential, logarithmic, rational, and discrete function models appropriately.

- 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.
- \* Demonstrate an appreciation and awareness of applications in their daily lives.

<u>ATTENDANCE</u> : Attendance is strongly emphasized. When you are absent, it is your responsibility to get the notes from other students who attend this same class. <u>Your classmates are your great resource.</u>

- \* <u>Homework problems</u> are given at the end of each class. . It is your responsibility to do them without fail, and you are encouraged to ask questions from that HW, at the beginning of next class, if you did not understand any problems from your HW. Also, you can always meet me one-on-one, during my office hours, for help.
- \* Note: 1. You need to bring 1) Text book ; 2) Scientific Calculator; 3) Writing material (pen/pencil/loose-leaf papers) every day to the class. If I see any day that you did not bring any of them, points will be deducted from your EARNED Points. RANDOM NOTEBOOK CHECK will be done and the POINTS will be added to the FINAL SCORE

# **GRADING:** . It is a POINT system.

### 1. <u>QUIZZES: (25 points each ; 4 quizzes ( 4. 25 = 100 points)</u>

a) Quizzes are given on some Wednesdays at the beginning of the class, in the first 20-30 min.

b) If a student is late to the class he/she looses the time. No extra time is given for the quiz.

c) A total of 4 quizzes are given and no quiz score is dropped, all are counted.

d) And no quizzes are made up, if any student is absent for any quiz.

e) Note down the date of the quiz from the syllabus..

## **2. MID-TERM TESTS (4): (4 TIMES 100 = 400 points)**

a) 4 Mid-terms are given in the quarter.

b) The Mid-term test is given on a WEDNESDAY at the beginning of the class. Duration is 50 min-1 hour.

c) If a student is late to the class he/she looses the time. No extra time is given for the TEST.

d) TESTS are not made up if any student is absent for any Mid-term test.

e) A Consideration is given when a students is absent for ONE MID - TERM TEST under emergency situations (proof is needed); **\*\*Consideration**-The final exam score will replace that one missed test. ONLY ONE TIME. Cannot be absent for the rest of the tests.

f) And if a student is present for all the tests, he/she will be given a chance of replacing the lowest test score with the final exam score if the final exam score is higher. A student can use only one of these (e or f) to use, not both. Meaning, if a student is absent, the missed test will be replaced but does not have the option of using final exam again for the lowest mid-term score.

3. <u>FINAL EXAM</u>: (150 points) There will be a comprehensive final exam on the last day we meet. A student *must* take the final exam to pass the course. Before going to the finals even if a student has a passing score, but if he/she does not attend the final exam, he/she will earn only F. So taking Final exam is MANDATORY. <u>Final Exam week : Exam on Dec 14th (Wednesday) 6.15- 8.15 pm (2 hours)</u>

\* <u>OPTIONAL: Extra Credit Work:</u> CWQ - ( class-work quizzes) / HWQ : (home work quizzes) :. 50 points (More info on this in the class, 1st day); \* WILL REPLACE TWO LOWEST QUIZ SCORES.

\* \* Bonus points are totally at the discretion of the instructor. ( will be discussed in the 1st class)

Category	Description	Score
1. CWQ- Optional (Extra Credit)	M (Not every Monday) 5 points each (5X5)=25	25 points *
2. HWQ- Optional(Extra Credit)	M (Not every Monday) 5 points each (5X5)=25	25 points *
3. Notebook check - Optional	Random checking (Any time during the quarter)	10 points *
4. Quizzes (4 quizzes) <b>20- 30 min</b>	WED Not every Wednesday( AT THE BEGINNING OF THE CLASS)	100 points
5. Mid-Term - 1 (50 min-1 hr test)	10/12/16 (WED ); (AT THE BEGINNING OF THE CLASS)	100 points
5. Mid-Term - 2 (50 min-1 hr test)	11/2/16 (WED ); (AT THE BEGINNING OF THE CLASS)	100 points
5. Mid-Term - 3 (50 min-1 hr test)	11/23/16 (WED ); (AT THE BEGINNING OF THE CLASS)	100 points
5. Mid-Term - 4 (50 min-1 hr test)	12/05/16 (MON ); (AT THE BEGINNING OF THE CLASS)	100 points
9. Final Exam	<u>Dec 14th (Wednesday) - 6.15- 8.15 pm (2 hours)</u>	150 points
10. Total Points	4 quizzes + 4 mid-terms + 1 Final	650 points

 $[387 - 418] = D \qquad [419 - 451] = D + [452 - 483] = C \qquad [484 - 516] = C +$  $[60\% - 64\%) = D \qquad [65\% - 69\%) = D + [70\% - 74\%) = C \qquad [75\% - 79\%) = C +$ 

 $\begin{bmatrix} 517 - 548 \end{bmatrix} = B \qquad \begin{bmatrix} 549 - 581 \end{bmatrix} = B + \qquad \begin{bmatrix} 582 - 613 \end{bmatrix} = A \qquad \begin{bmatrix} 614 - 650 \end{bmatrix} = A + \\ \begin{bmatrix} 80\% - 84\% \end{bmatrix} = B \qquad \begin{bmatrix} 85\% - 89\% \end{bmatrix} = B + \qquad \begin{bmatrix} 90\% - 94\% \end{bmatrix} = A \qquad \begin{bmatrix} 95\% - 100\% \end{bmatrix} = A +$ 

< 387 = F; Below 60% = F { YOU NEED TO GET <u>452</u> POINTS OVERALL IN ORDER TO PASS THIS COURSE}

# Syllabus Math 114-- Intermediate Algebra

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

\*1.1 & \*1.2 (Optional....Basics); 1.6 Properties of Exponents & 1.7 Scientific Notation

#### **Chapter 4 – Inequalities and Problem Solving**

\* 4.1 Linear Inequalities (Optional); Need to have this topic's basics to learn 4.2 & 4.3

4.2 Compound Inequalities & 4.3 Equations and Inequalities Involving Absolute Value

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

\*5.5 Factoring Special Forms (Optional)

\*5.6 A General Factoring Strategy(Optional)

#### <u>Chapter 6 – Rational Expressions, Functions, and Equations</u>

6.1 Rational Expressions and Functions Multi & Divi	6.4 Division of Polynomials by a monomial
6.2 Adding & Subtracting Rational Expressions	6.6 Rational Equations
6.3 Complex Rational Expressions	6.7 Formulas and Application of Rational E

& 6.8. Modeling Using Variations

n of Rational Equations (Time in Motion Problems & Work Problems)

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

- 7.1 Radical Expressions and Functions
- 7.3 Multiplying and Simplifying Radical Expressions

- 7.2 Rational Exponents
- 7.4 Add/ Subtract/Multi/Divide-Radical Expressions
- 7.5 Rationalizing the Denominator and Multiplying by More than 1 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

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

#### **114 Blitzer**

§1.6 - 1.7 are required
§3.3 is optional
§4.2 - 4.3 are required
§6.1 - 6.4 and 6.6 - 6.8 are required, only cover dividing by monomials from §6.4, skip §6.5
§7.1 - 7.6 are required
§9.1 - 9.6 are required, verifying inverses in §9.2 is optional (composition of functions and finding inverses are required)
§10.1 is required

§11.1 - 11.3 are required

# **Tentative Schedule**

DATE	DA Y	Clas s	TOPIC/ & Assessments
Sep 26	М	1st class	Discussion about the course & Class policies Go through basics & Lesson 1.1 & 1.2 ; <b>CWQ-1;</b>
Sep 28	W	2	Lesson: 1.6 & 1.7
Oct <b>3</b>	М	3	HWQ-1; Lessons: 4.2 & 4.3 ; CWQ-2;
Oct 5	W	4	Quiz-1 (1st chapter); Lessons 6.1 & 6.2 ( 5.5 basics)
Oct 10	Μ	5	HWQ-2; Lesson 6.3 & 6.4; CWQ-3; (5.6 Basics)
Oct 12	W	6	Mid term test - 1 (50 min) ( Chapters 1 and 4) : Lesson 6.6
Oct 17	М	7	Lessons: 6.7 & 6.8 CWQ-4;
Oct 19	W	8	Quiz-2(6.1-6.4); Lesson 7.1 & 7.2
Oct 24	M	9	HWQ-3 ; Lessons 7.3 & 7.4 ; CWQ-5
Oct 26	W	10	Quiz-3(6.6, 6.7 & 6.8); Lessons 7.5; (half of 7.6)
Oct 31	М	11	HWQ-4 ; Lessons 7.6; Review for the test
Nov 2	W	12	Mid term test - 2 (50 min) ( Chapters 6 & 7.1-7.4) ; Lesson 9.1
Nov 7	Μ	13	Lessons 9.2 & 9. 3
Nov 9	W	14	Lessons 9.3 & 9.4
Nov 14	М	15	HWQ-5; 9.5 & 9.6
Nov 16	W	16	Quiz- 4 (7.5, 7.6, 9.1 & 9.2)

Nov 21	М	17	9.6 & Review of chapter 9.						
Nov 23	W	18	Mid term Test - 3 (50 min) ( Chapter 9) : Lesson 10.1						
Nov 28	М	19	Lessons: 11.1 & 11.2						
Nov 30	W	20	Lesson 11.3; Review for chapter test.						
Dec 5	Μ	21	I term Test - 4 (50 min) ( Chapter 10.1 & 11.1-11.3) :						
Dec 7	W	22	Lesson 3.3 ; Review for Final exams						
Dec 9	М		No class						
Dec14h	W	23	FINAL EXAMDec 14th (Wednesday) - 6.15-8.15 pm (2 hours)						

\*\*\* <u>Cell phones</u> : should be switched off before entering the class and YOU SHOULD NOT use a cell phone AS a CALCULATOR. If I see that if cell phone is on, he/she may be asked to leave the class. And that would be counted as half absent and points are subtracted from the earned points.
<u>Additional Information:</u>

- **1.** Bonus points are given in many ways. They are totally at the discretion of the instructor. ( will be discussed in the 1st class); Can be added where ever is needed.
- 2. The instructor reserves the right to change the dates of quizzes, Tests & the dates of the lessons.
- 3. Keep all your graded material until the end of the class in case the roster file is lost
- 4. There are Minus points too. Read the end page for more info.....

## Student Services

Click on the link http://www.deanza.edu/studentservices/ for information about financial aid, childcare, counseling, academic support, disability support, student activities and other services provided by the college.

Note: Those needing accommodations based on the impact of a disability must contact the Disabled Students Services directly.

# **Important Dates:**

Saturday, Oct. 8 :: Last day to add quarter-length classes. Add date is enforced.

**Sunday, Oct. 9** :: Last day to <u>drop</u> for a full <u>refund or credit</u> (for 12-weeks, quarter-length classes). Last day to drop for a refund/credit for all other classes is listed inside <u>MyPortal</u>, on the Students Tab under 'View Your Class Schedule.' *Drop date is enforced*.

Sunday, Oct. 9 :: Last day to drop a class with no record of grade. Drop date is enforced.

Friday, Oct. 14 :: Last day to request pass/no pass grade. Request date is enforced.

Friday, Nov. 18 :: Last day to drop with a "W." Withdraw date is enforced.

- \* Getting Help: In addition to coming to office hours, you can get help at the *Math*, *Science & Technology Resource Center (MSTRC)* in S43. They are open M-Th 8:30am – 6:30pm and F 8:30am – 12:30pm.
- \***Cheating Policy:** Any student caught cheating on a quiz or an exam will receive 0 points on that quiz or exam. The same holds for any student who allows another student to cheat.
- \* **College Policies:** Students *can not* take the same class more than three times for a grade, *including W*. Late adds and late drops *will not* be processed.

# **My Scores**

## **<u>Quizzes: 4 quizzes; 25 points each: Put your score under the quiz;</u>**

Quiz- 1	Quiz- 2	Quiz- 3	Quiz- 4	Total
Date:				
/ 25	/ 25	/ 25	/ 25	/100

### Midterm Tests: 4 Midterm tests each is 100 points:

Те	Test-1		Test=2		Test-3		est-4	Total	
Date;	/100	Date;	/100	Date;	/100	Date;	/100	/400	

**Note:** By filling up all these on a regular basis you get an idea what your scores are at any given time.ALL THESE points ARE OUT OF **500 POINTS**, before going into final exams, which is 150 points..

# STUDY WELL AND DO WELL!! THE SUCCESS DEPENDS ON YOUR HARD WORK/ YOUR PERSEVERANCE/ YOUR DETERMINATION TO DO WELL. !!

# ALL THE BEST !!

## **OPTIONAL POINTS (EXTRA CREDIT WORK)**

## Note: This paper you need to carry to every class,

# 1. (CWQ & HWQ): 5 points each (10 x 5 = 50); Write the score on that given day/date..

MON	WED	MON	WED	MON	WED	MON	WED	MON	WED	Total-50
Date:										
/5	/5	/5	/5	/5	/5	/5	/5	/5	/5	/ 50

2. <u>Note Book Check Points</u> <u>/10 (Teacher will write the points and sign); The Note</u> <u>book check is done after 1st class any time during the quarter.</u>

3. \*\* Bonus points (I will sign on this slot every time you get a bonus point for different categories)

MON	WED	Total:								

MON	WED	Total:								

<u>1 Bonus point for every one for bringing this printed syllabus on the 1st or 2nd meeting of the class. I will sign your syllabus. FROM THEN ON You need to carry this all the time along with your notes.</u>

# <u>Please print this paper and submit to the teacher ON OR BEFORE the 2nd meeting of the class.</u>

# NAME:

**COURSE:** 

**Meeting time:** 

## **\*\*(Minus points: Categories; (For each category you loose 1 point)**

- 1. Use of cell phone in any form,
- 2. Not bringing the text book ;
- 3. Not bringing Calculator,
- 4. Leaving the class early without the prior permission of the teacher,
- 5. <u>Unexcused absences without prior intimation to the teacher</u>)
- 6. Disrupting the class.

MON	WED	Total:								

MON	WED	Total:								