

Syllabus

Math 210-03, CRN 01331, Winter 2015

Instructor: Ms. Rani Fischer, fischerrani@fhda.edu

Office Hours: before each class at 8 AM

Classroom: MLC260, 8:30-9:30 AM

Textbook: *Prealgebra Textbook*, 2nd ed., by College of the Redwoods, available free online at <http://mathrev.redwoods.edu/PreAlgText/>, but better to buy the hardcopy in the bookstore

What to bring every day: textbook, Math 210 notebook, loose-leaf paper, pencils, two colored pens

Class Rules: Be considerate and respectful. No calculators or cell phones.

Student Learning Outcome Statements (SLO)

- **Student Learning Outcome:** Demonstrate and apply a systematic and logical approach to solving arithmetic and geometric problems.
- **Student Learning Outcome:** Demonstrate and apply the knowledge and skills required to select the correct introductory formulas, procedures, and concepts from algebra and geometry and use them to solve problems.

II. Course Objectives

- Develop, throughout the course as applicable, systematic problem solving methods
- Solve problems involving arithmetic operations, including fractions, percents and decimals
- Apply the order of operations to evaluate numerical expressions
- Solve problems involving operations with signed numbers
- Explore the characteristics and properties of real numbers
- Use estimation to determine approximate solutions and to check the reasonableness of answers
- Explore rates and ratios and use proportions to solve problems
- Explore, as applicable throughout the course, the geometry of mathematical measurements and solve problems involving geometric figures and formulas
- Explore the use of variables in expressions and evaluate algebraic expressions
- Solve linear equations in one variable numerically and algebraically
- Interpret linear relationships in two variables numerically, graphically using the Cartesian coordinate system, verbally and algebraically
- Explore the concept of function
- Investigate, throughout the course as applicable, how mathematics has developed as a human activity around the world

GRADING:

Homework: HW will be collected. **LOOK AT THE SCHEDULE BELOW TO SEE WHETHER YOU HAVE HW DUE OR NOT. NO LATE HW ACCEPTED. You will get 3 free HW's since sometimes you might be sick or too tired to do HW.** To receive full points for HW, you must have completed HW on the day it is due and show all the steps. If you give answers without any explanation as to how you got them, you will not receive full credit. Write me notes to ask me questions in the HW so that I can know where you are stuck. HW is

graded 1-5 where 5 is a perfect score. I am grading HW on effort, not for correct answers. You check the odd answers in the back of the book and ask questions on paper or in class.

Quizzes: You will have a quiz every week based on HW problems. No make-ups allowed.

Tests: There will be several tests and a Final Exam. Each test, in addition to covering the current material, will contain several problems from previous chapters to help you retain cumulative information. The tests will be closed books and closed notes. In exceptional circumstances, you may be allowed to take a test early. Any such arrangement must be made in advance, and you must have a serious reason for doing so.

Final Exam: A comprehensive cumulative final exam will be given at the end of the quarter (see schedule). Students must score a 60 or above on the final exam to pass.

Grading:

Homework-20%
Quizzes-20%
Tests-30%
Final Exam-30%

Course Grade:

90-100% =A
80-89% = B
69-79% = C
60-69% = D
below 60% =F

Advice: This is a very intense course, and you must have time to do the HW. There is so much HW. If you do not do the HW, you will sink. Please try to get a good night's rest and eat breakfast, not just drink caffeine. That will help A LOT!

Also, start the HW as soon as you can. There is so much, that you cannot do it all at once. Start early and take breaks.

<u>1/5/2015</u>	<u>1/6/2015</u>	<u>1/7/2015</u>	<u>1/8/2015</u>	<u>1/9/2015</u>
Sec. 1.1 Whole Numbers, W	Sec 1.2 Add/Sub in W; Sec.1.3 Mult/Div in W	Sec. 1.4 Prime Factorization; Sec. 1.5 Order of Op, HW #1 due	Sec. 1.6 & 1.7 Solving equations	Sec. 2.1 Intro to Integers (Z), HW #2 due
1/12	1/13	1/14	1/15	1/16
Sec. 2.2, 2.3 Add/Sub of Z, HW #3 due	Sec. 2.4 Mult/Div in Z	Sec. 2.5 Order of Op. in Z, HW #4 due	Sec. 2.6 Solving equations in Z	Review for Test Ch.1 & 2, HW #5 due
1/19	1/20	1/21	1/22	1/23
MLK HOLIDAY, (Last day to drop a class with no record of grade)	Test on Ch. 1 & 2	Sec. 3.1, 3.2 Algebraic expressions and evaluating them	Sec. 3.3,3.4 Simplifying expressions, HW #6 due	Sec. 3.5 Solving Eq in Z
1/26	1/27	1/28	1/29	1/30
Sec. 3.6 Applic. Solving Eq., HW #7 due	Review Ch 3	Sec. 4.1 Equivalent fractions, HW #8 due	Sec. 4.2 Multiplication of fractions	Sec. 4.3 Division of fractions, HW #9 due (last day to request pass/no pass)
2/2	2/3	2/4	2/5	2/6
Sec. 4.4 Adding/Subtr fractions, HW #10 due	Sec. 4.4 review	Sec. 4.5 Mult/Div. mixed fractions, HW #11 due	Sec 4.6 Adding/Subtr mixed fractions	Sec 4.7 Order of operations, HW #12 due
2/9	2/10	2/11	2/12	2/13
Sec 4.8 Solving eq with fractions	Review Ch 3 & 4, HW #13 due	Test on Ch 3&4	Sec. 5.1 Intro to decimals	HOLIDAY
2/16	2/17	2/18	2/19	2/20
HOLIDAY	Sec. 5.2 Add/Subtr. Decimals, HW #14 due	Sec. 5.3 Multiplying decimals	Sec 5.4 Dividing decimals	Sec 5.5 Fractions & decimals, HW #15 due
2/23	2/24	2/25	2/26	2/27
Sec 5.6 Eq with decimals, HW #16 due	Sec 5.7 Square roots	Sec. 5.8 Pythag Theorem, HW #17 due	Sec 6.1 Ratios & rates	Sec. 6.2 Proportions (Last day to drop with a "W")
3/2	3/3	3/4	3/5	3/6
Sec. 6.2, HW #18 due	Sec 6.3 Unit conversion	Review Ch 5,6, HW #19 due	Test Ch 5,6	Sec 7.1 Percent, fraction, & decimal
3/9	3/10	3/11	3/12	3/13
Sec 7.2 Solving % problems	Sec. 7.3 App of %, HW #20 due	Sec. 7.4 % increase/decrease	Sec 7.4	Sec. 8.1 Cartesian plane, HW #21 due
3/16	3/17	3/18	3/19	3/20
Sec 8.2 Graphing linear equations	Sec 8.2	Functions, HW #22 due	Review Ch 7, 8, functions, HW #23 due	Test on Ch 7, 8, functions
3/23	3/24	3/25	3/26	3/27
Review for Final		FINAL EXAM 7 AM		

HW #1: p.9-10, 26-28 (starting with #39), p.44-47 (starting with #18)		
HW #2: p. 49, 58, 60, 61, 71-73		
HW #3: p. 85, 86, 94, 95		
HW #4: p.106-108, 124-126 (skip #37-52), 133-135		
HW #5: p. 145-147 (start with #18), 152-154, 167, 168		
HW #6: p.177 (#1-20 all), p.183-185		
HW #7: p.195 (all), 205, 213		
HW #8: p.214, 224, 225		
HW #9: p.226, 227, 243, 244		
HW #10: p.260-262, 270-271		
HW #11: p. 285-288 (skip #105-120)		
HW #12: p.297, 299, 308, 309		
HW #13: p.321, 322, 336-339 (skip #51-72)		
HW #14: p.353-356 (including #94 and #95)		
HW #15: p.366, 367, 382, 383, 395, 397 (#67-76 all; stop at #76)		
HW #16: p.398-399, 408-409		
HW #17: p.421, 423, (don't do p.422), 433 (do all on this page)		
HW #18: p. 443, 444 (all on this page), 454		
HW #19: p.463-465, 475, 477 (#101-103 all, only)		
HW #20: p.508-510, 518, 519		
HW #21: p. 525, 526, 538-540		
HW #22: p. 576- 579, 589-591, print p.4,5 only of function packet		
HW #23: p.4,5 of function packet		