

College Algebra Syllabus
MATH 1314.002
MWF 10:00-10:50 a.m.
JO 3.516
Fall 2005

Instructor: Dr. Paul Stanford

Text Book: *Understanding Intermediate Algebra*, 5th Ed., Hirsch, Goodman.
(Student Solutions Manual is strongly recommended.)

Contact Information

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Office hours: MW 4:00-5:00 p.m. in [ECSN 3.910](#), MW 8:15-8:30 p.m. in [FN 2.104](#), and by appointment.

Teaching Assistant: Indra Kshattray in [FO 1.605](#).

Course Description

This course is intended to provide students with the algebraic skills needed for basic mathematics courses such as Math 1325, Math 2312, Math 2417, Math 2333 and Stat 1342.

Course Topics Equations and inequalities, Introduction to functions, Linear Equations and systems of linear equations, Polynomials, Rational expressions and functions, Exponents and radicals, Quadratic functions, Operations on functions, Exponential and logarithmic functions.

Chapter 1: The Fundamental Concepts (sections 1.1, 1.2, 1.3, 1.4, and 1.5).

Chapter 2: Equations and Inequalities (sections 2.1, 2.2, 2.3, and 2.4).

Chapter 3: Graphing Straight Lines and Functions (sections.3.1, 3.2, 3.3, 3.4, and 3.5).

Chapter 4: Equations of a Line and Linear Systems in Two Variables (sections.4.1, 4.2, 4.3 and 4.4).

Chapter 5: Polynomial Expressions and Functions (sections 5.1, 5.2, 5.3, 5.4, 5.5, 5.6, and 5.7).

Chapter 6: Rational Expressions and Functions (6.1, 6.2, 6.3, 6.4, 6.5, 6.6, 6.7, and 6.8).

Chapter 7: Exponents and Radicals (sections. 7.1, 7.2, 7.3, 7.4, 7.6, and 7.7).

Chapter 8: Quadratic Functions and Equations (sections.8.1, 8.2, 8.3, 8.4, 8.5, 8.6, and 8.7).

Chapter 9: More on Functions (sections. 9.1, 9.2, 9.3, 9.4, and 9.5).

Chapter 10: Exponential and Logarithmic Functions (sections. 10.1, 10.2, 10.3, 10.4, and 10.5).

Examinations

are a zero. See below for dates and the calculation of grades. Calculators will NOT be allowed, except for certain quizzes where non-graphing calculators may be permitted.

All students are expected to take the examinations at the announced time. Cheating will NOT be tolerated. Students are required to inform the lecturer of suspected honor code violations. On all problems, you must show your work. No work, no credit (even for correct answers). In general, there will be no make up exams or quizzes. There will be no incompletes except in the direst of situations.

Problem Assignment

Problems will be assigned on a regular basis. Answers to most of these problems are given at the back of the textbook. Complete solutions to many of these problems may be found in the Solutions Manual, which is on reserve at the library (and may be available in the bookstore). You should work several problems of each type, and working more than the class assignments is strongly encouraged. Do not use the solutions at the back of the textbook before you have exhausted all possibilities (including asking the TA and the instructor).

Calculation of Grade

Each quiz is worth 25 points. The lowest two quiz scores will be dropped. The remaining quizzes are counted and converted to a percentage, giving a possible total of 100 points. Each regular examination is also worth 100 points. Only the best two scores from the quiz total or the regular exams will be used in the grade calculation, giving a possible total of 200 points. (In other words, the lowest of the three scores is dropped.) The comprehensive final examination is worth 200 points. This score cannot be dropped.

These scores are weighted so that the best two of three scores contribute 60% towards the overall grade, and the final contributes 40% toward the overall grade.

Grade Scale

[97,100] A+

[93,97) A

[90,93) A-

[87,90) B+

[83,87) B

[80,83) B-

[77,80) C+

[73,77) C

[70,73) C-

[65,70) D+

[60,65) D

[55,60) D-

[0, 55) F

Midterm grades

Midterm grades will be computed and submitted to the records office when requested. This grade will be computed in the following manner: Average of all quizzes up to this time (no drops) 50% Average of all exams up to this time (no drops) 50%

Important Dates (and see [Academic Calendar](#))

Monday, September 5th: University Holiday: Labor Day.

Friday, September 2nd: Last day to drop without a W.

Wednesday September 21st: **Exam I** (subject to change).

Thursday, September 22nd: WF or WP withdraw period begins.

Thursday, October 20th: Last day to withdraw with WF/WP.

Wednesday October 26th: **Exam II** (subject to change).

Thursday, November 24th: University Holiday: Thanksgiving Day.

Friday, November 25th: University Holiday: Thanksgiving.

Monday, November 28th: Last Day of Class.

Friday December 2nd: Comprehensive Final, 8:00 a.m. - 10:45 a.m.

Homework Assignments

In order to succeed in this course, one must work a large number of problems. Here is the list of selected odd-numbered exercises which everyone is expected to do. Many students might find it necessary to have more practice; they should choose similar problems from each section, or from the review exercises or practice tests which can be found at the end of each chapter.

Sec 1.1 #1,7,9,17,21,25,29,31,41,45,47,49

Sec 1.2 #9,11,13,15,17,19,31,33,43,53,63,65,67,75,77,79,91,93

Sec 1.3 #13,15,25,29,35,41,45,53,59,67

Sec 1.4 #23,25,27,29

Sec 1.5 #11,15,19,27,33,37,45,49,53,55,57,59,65,67

Sec 2.1 #1,3,5,13,15

Sec 2.2 #31,35,39,51,55,57,61,65,69,83

Sec 2.3 #17,33,39,45,49,53,59,67,71,73,75,77,81

Sec 2.4 #1,3,5,21,29,33,37,39,45,47,53

Sec 3.1 #3,5,13,19,21,23,37,39,45,51,53,55,57

Sec 3.2 #3,5,7,11,13,21

Sec 3.3 #3,9,15,17,23,25,27,45,47,49,53,55,57,59,61,73,75,81,89

Sec 3.4 #7,9,13,15,19,23,25,27,29,33,41,43

Sec 3.5 #1,7

Sec 4.1 #7,13,21,23,25,27,33,41,45,49,55

Sec 4.2 #9,13,17,21,23,29,31,33,37,41,49,57,59,67

Sec 4.4 #9,21,23,39,41

Sec 5.1 #1,7,9,11
Sec 5.2 #7,13,17,23,27,31,35,37,43,47,49,61,67,69,71
Sec 5.3 #9,17,21,25,35,43,47,63,65,71,73,85
Sec 5.4 #5,7,11,19,23,25,35,37,41,51,53
Sec 5.5 #3,7,17,35,55,65,73,89,97
Sec 5.6 #1,7,9,19,27,29
Sec 5.7 #1,3,7,11,19

Sec 6.1 #9,11,13
Sec 6.2 #1,5,9,13,19,25,41
Sec 6.3 #1,3,5,9,11,15,23,31,41,43
Sec 6.4 #9,11,15,19,21,25,29,33,39,43, 45,69,71
Sec 6.5 #1,5,7,19,35
Sec 6.6 #1,3,11,15,19,21,23,31,47,53
Sec 6.7 #1,3,9,15,21,25,29,31,37
Sec 6.8 #5,7,15,21,23,27,29,55,65

Sec 7.1 #3,13,17,19,25,35,39,43,51,53,59,61,63,69,73,75,79,81,85,89,93,95,99,101
Sec 7.2 #7,13,15,19,23,25
Sec 7.3 #1,3,5,11,13,23,25,27,29,33,35,37,39,43,45,49,53,59,67,69,77,81,91,97
Sec 7.4 #3,7,19,21,25,27,33,35,47,59,77,79
Sec 7.5 #3,13,15,17,21,23,37,43,49,55
Sec 7.6 #3,7,13,19,23,25,29,31,33,39,41,43,45,51,53,55,57,61,65
Sec 7.7 #1,3,7,11,17,21,27,29,33,35
Sec 7.8

Sec 8.1 #5
Sec 8.2 #1,7,9,13,35,47,53,79,81,91,97,101
Sec 8.3 #1,5,7,13,25
Sec 8.4 #1,5,23,31,35,47,49,53
Sec 8.5 #1,3,9,15,21,29,33
Sec 8.6 #1,3,9,13,15,17,29,35,39
Sec 8.7 #1,7,11,19,21,29,31,37,39,51
Sec 8.8

Sec 9.1 #13,17,23,25,29,33,35,39
Sec 9.2 #3,5,9,15,19,21,25,27,39,47,49
Sec 9.3 #25,27,29,33,39,51,53
Sec 9.4 #3,7,15,19,21,23,31,39,43,47,49
Sec 9.5 #1,5,9,13,17,21

Sec 10.1 #1,3,9,15,17,19,21,23
Sec 10.2 #1,5,7,11,21,25,29,35,39,41,45,53,55,63,65,69,73,75,77
Sec 10.3 #1,11,15,17,19,21,23,29,33,35,37,43,51
Sec 10.4 #1,3,5,11,13,21,27,31,33,41
Sec 10.5 #1,5,7,11,17,23,29,31,37