

Math 137 Syllabus for Fall 2010
Three Rivers Community College

Course: Intermediate Algebra MAT* K137 T04

CRN: 30155

Prerequisites: Math 095 with a grade of C or better OR Acceptable Placement Score

Instructor: John Wengertsman

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Office Hours: Monday and Wednesday 9:45 to 10:45, Tuesday and Thursday 2:30 to 3:30

Text: Intermediate Algebra Functions & Authentic Applications 4th Edition
by Jay Lehmann

Meeting Times: Monday and Wednesday from 3:30 - 4:45pm

Room #: D105

Course Description: This course continues the development of algebraic skills and concepts. It also touches lightly on right triangle trigonometry. The topics include linear equations, right triangle trigonometry applications, functions and graphs, applications of systems of equations, inequalities, rational expressions and equations, operations on radicals and radical equations, rational exponents, quadratic equations, exponential and logarithmic functions.

Course Objectives: The objective of this course is to enable the student to understand and to work with, interrelate, and apply algebra governing: solutions of linear equations and inequalities, functions, solutions of systems of equations, rational expressions and equations, radical expressions and equations, solutions of quadratic equations, exponential and logarithmic functions. The student will also develop a basic understanding of Right Triangle Trigonometry.

Attendance: For the learning process to be effective, you are expected to attend each class regularly, to arrive on time, and to take exams on their assigned dates. If you miss a class, you are still responsible for the material covered, homework assigned, and any announcements. If you will be missing a class for an appropriate reason, please call or email me as soon as possible.

Withdrawal Policy: Students may withdraw, in writing at the Registrar's Office, for any reason up through Thursday, December 9. No withdrawals will be accepted after Thursday, December 9.

Homework: I expect all homework assignments to be completed and kept in an organized notebook or folder. Homework is assigned at each class meeting.

Course Evaluation: There will be three tests (worth 23% each) and a cumulative final exam (worth 31%). You must come to class to take these tests. **In general, make-up of a missed test is not allowed.** Exceptions to this rule may be made for extraordinary circumstances (grade may be adjusted). Tests will be announced a week in advance.

A 94-100; A- 90-93; B+ 87-89; B 83-86; B- 80-82 C+ 77-79; C 73-76; C- 70-72; D+ 67-69; D 63-66;
D- 60-62; F below 60

Support Services: TASC is the college's free tutoring and academic success center. Sign up a tutor or drop in as needed to the Thames Tutoring Center (860 885-2311) located in room C-117. Peers and peer study groups are also good resources. Meeting with me is another option available.

Use of Calculators: This course requires the use of a TI83 Plus or TI84 Plus graphing calculator.

Academic Integrity Policy: Academic integrity is essential to a useful education. Failure to act with academic integrity severely limits a person's ability to succeed in the classroom and beyond. Furthermore, academic dishonesty erodes the legitimacy of every degree awarded by the College. In this class and in the course of your academic career, present only your own best work; clearly document the sources of the material you use from others; and act at all times with honor. Please see the Three Rivers Community College catalog for the college's Academic Integrity Policy.

Disabilities Statement: Students with disabilities, who require special accommodations and support services, are encouraged to notify Chris Scarborough (860 892-5751)

Cellular Phones and Beepers: Cellular phones and beepers must be turned off during class. Phones are not to be answered during class. Please see me if extenuating circumstances should arise.

Inclement Weather: To obtain information on delays, changes, or class cancellations due to inclement weather or emergencies call 860 886-0177 or go to www.trcc.commnet.edu.

Math 137 Course Content

- 1.6 Functions
- 2.1 Using Lines to Model Data
- 2.2 Finding Equations of Linear Models
- 2.3 Function Notation and Making Predictions
- Right Triangle Trigonometry – Applications (Handout)
- 3.2 Using Substitution and Elimination to Solve Systems
- 3.3 Using Systems to Model Data
- TEST 1

- 4.1 Properties of Exponents
- 4.2 Rational Exponents
- 4.3 Graphing Exponential Functions
- 4.4 Finding Equations of Exponential Functions
- 4.5 Using Exponential Functions to Model Data

- 5.2 Logarithmic Functions
- 5.3 Properties of Logarithms
- 5.4 Using the Power Property with Exponential Models to Make Predictions
- 5.5 More Properties of Logarithms
- 5.6 Natural Logarithms
- TEST 2

- 6.1 Adding and Subtracting Polynomial Expressions and Functions
- 6.2 Multiplying Polynomial Expressions and Functions
- 6.3 Factoring Trinomials of the Form $x^2 + bx + c$: Factoring Out the GCF
- 6.4 Factoring Polynomials
- 6.5 Factoring Special Binomials
- 6.6 Using Factoring to Solve Polynomial Equations

- 7.1 Graphing Quadratic Functions in Vertex Form
- 7.2 Graphing Quadratic Functions in Standard Form
- 7.3 Using the Square Root Property to Solve Quadratic Equations
- 7.5 Using the Quadratic Formula to Solve Quadratic Equations
- 7.6 Solving Systems of Linear Equations in Three Variables
- 7.7 Finding Quadratic Models
- TEST 3

- 8.1 Finding the Domains of Rational Functions and Simplifying Rational Expressions
- 8.2 Multiplying and Dividing Rational Expressions
- 8.3 Adding and Subtracting Rational Expressions
- 8.5 Solving Rational Equations
- 8.6 Modeling with Rational Functions

- 9.1 Simplifying Radical Expressions
- 9.2 Adding, Subtracting, and Multiplying Radical Expressions
- 9.5 Solving Radical Equations
- FINAL EXAM – CUMULATIVE