Office: FEM 3
Office HRS: MW 10:00-11:00, T 12:00-1:00 in LRC 106, or by appointment
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Math 103-55130: Intermediate Algebra (5 Units)
Class meets: M-F (8:00-8:50) RM# CCI 200
Text: <u>Elementary & Intermediate Algebra</u>, McKeague, 3rd ed., **ISBN**-10: 0495108510
Prerequisite: Math 101
Basic Skills Advisories: Eligibility for English 126.

Description

This course will deal with many algebraic concepts including: equations and inequalities in two variables, rational exponents and roots, quadratic functions, exponential and logarithmic functions, and conic sections.

Expectations / Responsibilities

Instructor
- Provide the necessary instruction and model the quality of work to be successful in Math 103.
- Clearly communicate progress being made in a timely fashion.
- Cancelled classes will be posted on Blackboard and the Reedley College website.

Student
- Turn **OFF** your phone.
- Follow the class rule – **Be Nice**.
- Learn the material that is taught and **get help** when necessary.
- Complete at least 70% of the chapter's homework prior to each test.
- Monitor the class Blackboard site regularly, provide a working e-mail address, and monitor grades online.
- Students are responsible for officially dropping the class.

Attendance
- Be in each class on time from **REEDLEY** to **TIGERS**.
- You may be dropped if you have more than 3 absences.

Grading

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

Tests **75%**   There will be five tests and a comprehensive final. A homework score of at least 70% must be earned prior to each test. The lowest test score will be dropped after the final has been taken. There are **no make-up tests**. A test may be taken early with prior approval.

Homework **20%**   Homework may be assigned online, from the text, or from handouts. **No late homework** is accepted.

Quizzes 5%   Quizzes will be given at random. There are **no make-up quizzes**.

There is **no extra credit**.

Important Dates

January 30, 2009	Friday	Last day to register for a full-term fall class
January 30, 2009	Friday	Last day to drop a fall full-term class to avoid a "W"
February 17, 2009	Friday	Last day to change a class to/from Pass/No Pass
March 13, 2009	Friday	Last day to drop a full-term class to avoid a grade
May 20, 2009	Wednesday	***Final Exam 8:00-9:50***

NOTE: If you have a verified need for an academic accommodation or materials in alternate media (i.e., Braille, large print, electronic text, etc.) per the Americans with Disabilities Act or section 504 of the Rehabilitation act please contact me as soon as possible.

Please refer to SCCCD policies for guidance on all matters relating to this course.

ACADEMIC DISHONESTY

Cheating is the act or attempted act of taking an examination or performing an assigned, evaluated task in a fraudulent or deceptive manner, such as having improper access to answers, in an attempt to gain an unearned academic advantage. Cheating may include, but is not limited to, copying from another's work, supplying one's work to another, giving or receiving copies of examinations without an instructor's permission, using or displaying notes or devices inappropriate to the conditions of the examination, allowing someone other than the officially enrolled student to represent the student, or failing to disclose research results completely.

Plagiarism is a specific form of cheating: the use of another's words or ideas without identifying them as such or giving credit to the source. Plagiarism may include, but is not limited to, failing to provide complete citations and references for all work that draws on the ideas, words, or work of others, failing to identify the contributors to work done in collaboration, submitting duplicate work to be evaluated in different courses without the knowledge and consent of the instructors involved, or failing to observe computer security systems and software copyrights. Incidents of cheating and plagiarism may result in any of a variety of sanctions and penalties, which may range from a failing grade on the particular examination, paper, project, or assignment in question to a failing grade in the course, at the discretion of the instructor and depending on the severity and frequency of the incidents.

COURSE OUTCOMES:

Upon completion of this course, students will be able to:

A) create a linear equation given a slope and a point or two points; graph linear equations and inequalities and use function notation to find the value of expressions.
B) add, subtract, multiply, and divide radical expressions and use exponent properties and conjugate properties to simplify and solve radical expressions.
C) complete the square of a quadratic equation and use the quadratic formula to solve any quadratic equation; graph quadratic equations using translations.
D) solve exponential and logarithmic equations by using equivalent expressions; use exponential and logarithmic properties to convert between common logarithms, natural logarithms and other bases.
E) expand binomial expressions using Pascal's triangle and the binomial coefficient formula; find the nth term of a sequence of numbers.
F) graph each of the conic sections by translations; put conic equations and inequalities into the standard form.

COURSE OBJECTIVES

In the process of completing this course, students will:

A)   use function notation and the properties of lines and linear inequalities.
B)   simplify radical expressions and perform operations on radical expressions.
C)   graph parabolas and solve quadratic equations.
D)   use the properties of exponents and logarithmic functions to change the base of a logarithm.
E)   generalize arithmetic and geometric sequences and find the k^h term of a binomial expansion.
F)   manipulate and graph equations of conic sections.

COURSE OUTLINE

A.   Equations and Inequalities in Two Variables
       1.   Slope of a line
       2.   The equation of a line
       3.   Linear inequalities in two variables
       4.   Algebra using function notation

B.   Rational Exponents and Roots
       1.   Rational exponents
       2.   Simplified form for radicals
       3.   Addition, subtraction, multiplication, and division of radical expressions
       4.   Equations with radicals
       5.   Complex numbers

C.   Quadratic Functions
       1.   Completing the square
       2.   The quadratic function
       3.   Graphing Parabolas
       4.   Quadratic Inequalities

D   Exponential and Logarithmic Functions
       1.   Exponential Functions
       2.   The Inverse of a function
       3.   Logarithms and their properties
       4.   Exponential equations and change of base

E.   Sequences and Series
       1.   Arithmetic and geometric sequences
       2.   Series
       3.   Binomial Expansion

F.   Conic Sections
       1.   Circle
       2.   Ellipses and Hyperbolas
       3.   Second-degree inequalities and non-linear systems