MARTIN COMMUNITY COLLEGE COURSE SYLLABUS

Semester/Year: Spring/2011

COURSE NUMBER: MAT 080 – LC1 INSTRUCTOR: Daniel Price

COURSE TITLE: Intermediate Algebra OFFICE NO: Building 4, Office 12A

CREDIT HOURS: 4 **OFFICE HOURS:** 2:30 – 3:30 M,T,W,Th,F

11:00 - 12:00 M,T,W,Th,F

CONTACT HRS/WK 5

PHONE NO: (252) 789-0209

PREREQUISITES: MAT 070 or appropriate score on

placement test. **FAX:** (252) 792 – 0826

COREQUISITES: RED 080 or appropriate score on E-MAIL: dprice@martincc.edu

placement test.

COURSE DESCRIPTION:

This course continues the study of algebraic concepts with emphasis on applications. Topics include factoring; rational expressions; rational exponents; rational, radical, and quadratic equations; systems of equations; inequalities; graphing; functions; variations; complex numbers; and elements of geometry. Upon completion, students should be able to apply the above concepts in problem solving using appropriate technology.

PROGRAM LEARNING OUTCOMES:

- 1. Apply critical thinking skills to problem-solving.
- 2. Demonstrate use of appropriate discipline-related technology.
- 3. Demonstrate entry level skills needed for first college-level course in the curriculum.

COURSE LEARNING OUTCOMES:

At the completion of this course the students should be able to:

- 1. Perform basic operations with polynomials including factoring.
- 2. Evaluate, simplify, add, subtract, multiply and divide rational expressions.
- 3. Evaluate expressions involving rational exponents and perform basic operations with radical expressions.
- 4. Solve rational, radical and polynomial equations and inequalities as well as systems of equations and inequalities
- 5. Perform basic operations with complex numbers.
- 6. Evaluate and graph functions and solve problems using function notation.

COURSE COMPETENCIES:

The student should be able to model and solve application problems while learning to:

- 1. Factor polynomials
- 2. Identify, evaluate and simplify rational expressions
- 3. Define rational exponents and evaluate expressions involving rational exponents
- 4. Solve rational, radical and polynomial equations (numerically, analytically, and graphically)
- 5. Solve rational and polynomial inequalities (numerically, analytically, and graphically)
- 6. Identify and use functions (verbally, numerically, graphically, and symbolically)
- 7. Solve systems of equations
- 8. Define and solve direct, inverse and joint variation
- 9. Perform basic operations with complex numbers
- 10. Apply topics of analytic geometry including: distance formula, midpoint formula, and slope
- 11. Use appropriate technology

REQUIRED TEXTBOOKS:

Toby, John & Slater, Jeffery (2006). *Intermediate algebra* (6th ed.). Upper Saddle River, NJ: Person Prentice Hall.

ISBN: 0-13-149078-8

LEARNING/TEACHING METHODS:

Lecture, student discussion, experiments, guided and independent practice, cooperative learning activities, outside reading assignments and computer assisted practice.

ASSESMENTS/METHODS OF EVALUATION:

To demonstrate attainment in program and course learning outcomes for MAT 080, one must achieve an overall average of 77% or better. To achieve these outcomes, you must successfully complete the following:

Major Tests
 Quizzes, Outside Assignments and Graded Homework
 Comprehensive Final Exam

Average will count 40%
Exam will count 20%

GRADING POLICY:

Grades will be assigned on the following scale:

93 – 100% A 85 – 92% B 77 – 84% C Below 77% F Administrative Withdrawal WF*

COURSE OUTLINE:

Week - 1 & 2

Course Introduction

Basic Concepts (Chapter 1)

Linear Equations and Inequalities (Chapter 2)

Week - 3 & 4

Equations and Inequalities in Two Variables and Functions (Chapter 3) Systems of Linear Equation & Inequalities (Chapter 4)

Week - 5 & 6

Polynomials (Chapter 5)

Rational Expressions and Equations (Chapter 6)

Week - 7 & 8

Rational Exponents and Radicals (Chapter 7)

Quadratic Equations and Inequalities (Chapter 8)

Review and Final Exam

STUDENT ATTENDANCE POLICY:

- The current MCC Attendance Policy applies. Attendance at every class is necessary for maximum benefits from this course. Students are required to attend face to face class meetings a minimum of 85% of the time in order to receive credit for the course. Three tardies and/or early departures equal one hour's absence. Missing more than 10 minutes at the beginning or end of class will constitute an absence not a tardy.
- Absence from class may be excused in the following circumstances:

Verifiable death of an immediate family member

Verifiable hospitalization of self or immediate family member

Documented emergency at the discretion of the instructor.

(Definition of "immediate family member," mother, father, sibling, spouse, child, grandparent)

- Students will be counted absent from the date of registration.
- Students must be present in at least one class during the first ten percent of a course in ordered to be considered enrolled in the class. If a student has not attended at least one class by the ten percent census date, the instructor will administratively withdraw the student.

^{*}Administrative withdrawal is used when students do not meet the attendance requirement.

- Students who miss more than six contiguous contact hours may be administratively withdrawn from the class by the instructor and given a grade of "WF." The "WF" will be equivalent to an "F" when calculated into the student's GPA.
- Students may remove a "WF" by submitting appropriate paperwork for an official withdrawal by the last day to officially withdraw without receiving an "F." The last day to officially withdraw without receiving an "F" is published in the academic calendar for each academic year.

Request for Excused Absences for Religious Observances*

*In compliance with G.S. 115D-5, MCC policy permits a student to be excused, with the opportunity to make-up any test or other missed work, a minimum of two excused absences per academic year for religious observances required by the student's faith. The policy limits the excused absences to a maximum of two days per academic year.

Students who wish to be excused for a Religious Observance required by their faith must complete and submit a request form to the instructor(s) prior to the census date of each class. The **Request for Excused Absences for Religious Observances** form can be picked up from Student Services. This does not supersede the college-wide attendance policy as outlined in the college catalog or syllabus, with the exception of a reasonable accommodation for the make-up of missed course work.

COURSE POLICIES:

Assignment Due Dates:

All assignments are due at the beginning of a class period. If a student is absent when an assignment is due it is their responsibility to see that the instructor receives that assignment the next time the student is in class.

Make-up Policy:

If a student is absent when graded work is done in class, he/she will receive a grade of "0" for that work. In computing the quiz average the lowest grade for each student will be dropped before averaging. Tests can be made up only in cases of legitimate verifiable absences and must be made up within three days.

Cellular Phones and Pagers

Cell phones and pagers should be set to silent mode before entering class.

Academic Integrity Statement

The President or any other authorized college official may dismiss, suspend, or expel any student who disrupts the legal mission, educational processes or function of the college, (see Student Governance and Conduct Code). Deliberately cheating or knowingly and intentionally engaging in acts of plagiarism is a violation of the Student Governance and Conduct Code (see Student governance and Conduct page 47). Cheating will result in a failing grade for the course and possible expulsion.

Open Door Policy

Martin Community College is an equal opportunity institution and maintains an "open door policy" for eligible applicants and serves all students regardless of race, color, creed, sex, age, handicap, religion, or national origin.

Contact Person

If you cannot reach your instructor, you may contact Dr. Phyllis Broughton, Dean of Academic Affairs and Student Services at (252) 789-0246 or (252) 789-0247 by phone, <u>pbroughton@martincc.edu</u> by e-mail, or in person at her office in Building 2, Room 33.

Martin Community College Career Catalog

To access the Martin Community College Career Catalog for policies and curriculum requirements, please go online to www.martincc.edu.

Disability Statement

Martin Community College Supports the Americans with Disabilities Act and is sensitive to the needs of applicants with documented disabilities. If you have a need for a disability-related accommodation, please notify the Student Services counselor at (252) 789-0293.