

NEW RIVER COMMUNITY COLLEGE
DUBLIN, VIRGINIA

COURSE PLAN

Course Number and Title: MTH - 04 ALGEBRA II (Lecture)

Prepared by: Kim Coake
(Instructor)

Spring, 2008
(Date)

Approved by: _____
(Interim Dean)

Spring, 2008
(Date)

I. Course Description

Reviews and expands upon the topics of Algebra I including rational expressions, radicals and exponents, quadratic equations, systems of equations, and applications. Develops the mathematical proficiencies necessary for selected curriculum entrance. **Credits not applicable toward graduation.** Prerequisites: a placement recommendation for MTH 04 and Algebra I or equivalent.

II. Introduction

In addition to developing a strong base of algebra skills, this course is intended to help you learn “how to learn” mathematics. It is intended to help relieve your anxiety and build your confidence in your mathematics skills. With the mathematics and study skills you will develop in MTH 04, you should be able to move to the next mathematics course with a higher expectation of success.

III. Course Content

Review From Algebra I (MTH-03)

Topics to be covered:

Chapter 8	Review of Chapters 1-7
8.1	Chapter 1 Review
8.2	Chapter 2 Review
8.3	Chapter 3 Review
8.4	Chapter 4 Review
8.5	Chapter 5 Review

Chapter 6	Factoring Polynomials and Solving Quadratic Equations
6.1	Greatest Common Factor and Factoring by Grouping
6.2	Special Factoring Techniques I
6.3	Special Factoring Techniques II
6.4	Solving Quadratic Equations by Factoring
6.5	Applications of Quadratic Equations
6.6	Additional Applications of Quadratic Equations
6.7	Using a Graphing Calculator to Solve Equations and Absolute Values
6.8	Additional Factoring Practice
Chapter 7	Rational Expressions
7.1	Multiplication and Division with Rational Expressions
7.2	Addition and Subtraction with Rational Expressions
7.3	Complex Fractions
7.4	Equations and Inequalities with Rational Expressions
7.5	Applications
7.6	Additional Applications: Variation
Chapter 8	Review of Chapters 1-7
8.6	Chapter 6 Review
8.7	Chapter 7 Review
Chapter 9	Systems of Linear Equations I
9.1	Systems of Equations: Solutions by Graphing
9.2	Systems of Equations: Solutions by Substitution
9.3	Systems of Equations: Solutions by Addition
9.4	Applications: Distance-Rate-Time, Number Problems, Amounts and Costs
9.5	Applications: Interest and Mixture
Chapter 10	Roots, Radicals, and Complex Numbers
10.1	Roots and Radicals
10.2	Rational Exponents
10.3	Arithmetic with Radicals
10.4	Functions with Radicals
10.5	Introduction to Complex Numbers
10.6	Multiplication and Division with Complex Numbers
Chapter 11	Quadratic Equations
11.1	Quadratic Equations: Completing the Square
11.2	Quadratic Equations: The Quadratic Formula
11.3	Applications
11.4	Equations with Radicals
11.5	Equations in Quadratic Form

Chapter 12

- 12.1
- 12.2
- 12.3

Quadratic Functions and Conic Sections

- Quadratic Functions: Parabolas
- Quadratic and Other Inequalities
- $f(x)$ Notation (don't do Translations)

IV. Instructional Materials

Text: Introductory and Intermediate Algebra
Author: D. Franklin Wright copyright 2005
Publisher: Hawkes Publishing
ISBN: 0-918091-90-X

Calculator: A scientific calculator is required (TI-30XII suggested). Students may wish to use a graphing calculator, specifically a Texas Instrument TI83 or higher. The text demonstrates the use of a TI83 plus calculator. Calculators on cell phones are not permitted in class.

Other Materials: A three-ring notebook and paper (*Note: Handouts will be hole punched.*)
Graph Paper
Ruler
Pencils (*Note: Pens should not be used for tests and quizzes*)
Colored pencils/highlighter

Additional resource materials for some New River Community College classes can be found on the NRCC Web-based learning site at nr.edu/learninglinks.

V. Evaluation/Grading

Grading for MTH 04 will be based on the following:

(A) Hawkes Learning System: Homework Assignments	200 points
(B) Quizzes:	200 points
(C) Tests:	700 points
(D) Comprehensive Final Exam:	300 points

No make-up quizzes or tests will be given. If you arrive late to class and miss a quiz you will not be allowed to make it up. The final exam may be used to replace the student's one lowest test score.

The student's final grade will be determined as follows:

S = Satisfactory:	Final average of 75% or higher.
U = Unsatisfactory:	Final average below 75%.
I = Incomplete:	80% of the course must be completed with an average of 75% or higher. Therefore, an "I" grade can only be given if a student has an average of 75% or higher, and is unable to take the Final Exam.
W = Withdrawal:	The college Withdrawal Policy will be followed.

VI. Instructor Contact Information

I am available to assist students before class from 5:30-6:00 on Tuesday and Thursday. You can find me in the faculty office if I am not in the classroom. You do not need an appointment. You can contact me via email at nrcoakk@nr.edu. I check email on Monday and Wednesday nights.

VII. Note to the Student

Math is not a spectator sport! Today you must decide that this course is important. You must decide to devote the time, thought, and energy needed to be successful in this course. There are many support services available at NRCC, but you are the one who must do the work. Among the aids available for MTH 04 are tutors, videotapes, software, and other students in the class. I am available for individual and group help as needed.

The first part of MTH-04 reviews concepts from Algebra I (MTH-03). It is very important for each student to master this material. If this is not the case, the student should strongly consider repeating Algebra I (MTH-03) or another alternative. In any case, success with the new material in MTH-04, as well as success in future Math courses, will require a clear understanding of Basic Algebra concepts.

This section of MTH 04 is lectured. Other sections may use Mediated Learning. If a student wishes to switch to a mediated learning section, this can be done during the first week of classes without instructor approval. After the first week of classes, a student can only switch sections with signed approval from me and the instructor of the new section. In any case, however, no student is permitted to switch to a mediated learning section later than one day following the first test.

Do not eat or drink in classroom.

Do not use cell phones in classroom for calls or text messages.

VIII. Cheating Policy

The giving or receiving of any help on any graded portion of the course is considered cheating and will not be tolerated. The use of books, notes, electronic devices, cell phone calculators or any other unauthorized material during tests or quizzes is considered cheating. Any student found cheating will receive a grade of "0" on that portion and possibly a "F" for the course. This "0" will not be dropped as the lowest test score.

IX. Attendance and Withdrawal Policies

Attendance

Attendance will be taken at the beginning of each class meeting. Students missing class are responsible for any material covered and assignments made in their absence. Students arriving late should come in quietly. They are responsible to inform the instructor *after* class that they were present.

Attendance on the day of a quiz or test is mandatory because there are no make-up quizzes or tests.

Student Initiated Withdrawal Policy

A student may drop or withdraw from a class without academic penalty during the first sixty percent (60%) of a session. For purposes of enrollment reporting, the following procedures apply:

- a. If a student withdraws from a class prior to the termination of the add/drop period for the session, the student will be removed from the class roll and no grade will be awarded.
- b. After the add/drop period, but prior to completion of sixty percent (60%) of a session, a student who withdraws or is withdrawn from a course will be assigned a grade of "W." A grade of "W" implies that the student was making satisfactory progress in the class at the time of withdrawal, that the withdrawal was officially made before the deadline published in the college calendar, or that the student was administratively transferred to a different program.
- c. After that time, if a student withdraws from a class, a grade of "F" or "U" will be assigned. Exceptions to this policy may be made under documented mitigating circumstances if the student was passing the course at the last date of attendance.

A retroactive grade of "W" may be awarded only if the student would have been eligible under the previously stated policy to receive a "W" on the last date of class attendance. The last date of attendance for a distance education course will be the last date that work was submitted.

Late withdrawal appeals will be revised and a decision made by the Director of Student Services.

Instructor Initiated Withdrawal Policy

A student who adds a class or registers after the first day of class is counted absent from all class meetings missed. Each instructor is responsible for keeping a record of student attendance in each class.

Students who have not attended class or picked up/accessed distance learning materials by the last day to drop class and receive a refund must be withdrawn by the instructor during the following week. No refund will be applicable.

Since attendance is not a valid measurement for Distance Education (DE) courses, students may be withdrawn due to non-performance. Students should refer to his/her DE course plan for the instructor's policy.

When a student's absences equal twice the number of weekly meetings of a class (equivalent amount of time for summer session), the student may be dropped for unsatisfactory attendance in the class by the instructor.

When an instructor determines that absences constitute unsatisfactory attendance, an Instructor Withdrawal Form should be completed and submitted to the Admissions and Records Office within five days of when the student met the withdrawal criteria. The last date of attendance must be documented. A grade of "W" will be recorded during the first sixty percent (60%) period of a course. Students withdrawn after the sixty percent (60%) period will receive a grade of "F" or "U" except under documented mitigating circumstances when a letter of appeal has been submitted by the student. A copy of this documentation must be placed in the student's academic file.

The student will be notified of the withdrawal by the Admissions and Records Office. An appeal for reinstatement into the class may be approved only by the instructor.

X. Other

Disability Statement

If you are a student with a documented disability who will require accommodations in this course, please register with the Disability Services Office located in the Counseling Center in Rooker Hall for assistance in developing a plan to address your academic needs.

Diversity Statement

The NRCC community values the pluralistic nature of our society. We recognize diversity including, but not limited to, race, ethnicity, religion, culture, social class, age, gender, sexual orientation and physical or mental capability. We respect the variety of ideas, experiences and practices that such diversity entails. It is our commitment to ensure equal opportunity and to sustain a climate of civility for all who work or study at NRCC or who otherwise participate in the life of the college.