NEW RIVER COMMUNITY COLLEGE
DUBLIN, VIRGINIA

COURSE PLAN

Course Number and Title:  MTH 04 – Algebra II

Prepared by: Debra Gupton
( Instructor) Spring, 2010
(Date)

Approved by: ___________________________
(Dean) Spring, 2010
(Date)

I. Course Description

Covers the topics of Algebra II including real numbers, equations and inequalities, exponents, polynomials, factoring, Cartesian coordinate system, rational expressions, and applications. Develops the mathematical proficiency necessary for selected curriculum entrance. Credits not applicable toward graduation. Prerequisites: a placement recommendation for MTH 03 and Arithmetic or equivalent.

Contact 5 hours per week.

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

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 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

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 Quadratic Functions and Conic Sections
12.1 Quadratic Functions: Parabolas
12.2 Quadratic and Other Inequalities
12.3 \( f(x) \) Notation (don’t do Translations)

IV. Instructional Materials


Calculator: A scientific calculator is recommended. A graphing calculator will not be needed for this course. Calculators on mobile phones are not allowed to be used in class.

Other Materials: Graph paper
Pencils (Note: Pen should NOT be used)
Paper to take notes on.

V. Evaluation/Grading

Quizzes: There will be approximately 6 quizzes, over homework problems throughout the semester, one quiz before each test. There will be no make up quizzes given. Any missed quiz will receive the score of “0”. (See Class Work below.) The average of all quiz grades will count as 10% of the course grade.
Tests: There will be 6 tests. **There will be no make up tests given.** Any missed test will receive the score of “0”. (See Final Exam below.) *The average of all 6 tests will count as 50% of the course grade. (The lowest test score will be dropped, only one test score will be dropped.)*

In-class work: **There will be no make-up tests or quizzes given.** Occasionally there might be problems to do in class.

Homework: Homework will be assigned to be done using the Hawks Learning System software that comes with the textbook, **this software is required.** Details about this will be given out later. *Homework will count as 20% of the course grade.*

Final Exam: There will be a comprehensive final exam. *The final counts as 20% of the course grade. If a student has a 93% average on all work prior to the final, and no tests or quizzes have been missed, then that student will be exempt from the Final Exam.*

Course Grade:

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(0.10)(\text{Quiz Avg}) + (0.50)(\text{Test Avg}) + (0.20)(\text{Hmwk}) + (0.20)(\text{Final}) = \text{Course Average}
\]

\[
S = \text{Satisfactory: You must have a course average of 75% or higher.}\\
U = \text{Unsatisfactory: You have a course average below 75%.}\\
I = \text{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 = \text{Withdrawal: The college Withdrawal Policy will be followed}
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On written quizzes and tests, I do **NOT** grade answers, I grade the work. **Credit will NOT be given if the correct work is not shown on the test paper.**

VI. **Class Procedures**

During tests students should have nothing on their desk except the materials permitted for the test. All other books, papers and notebooks must be moved out of the work area. Only instructor provided scratch paper and formula sheets are allowed.

**No unauthorized electronic devices are to be used during class time, this includes cell phones, (cell phones are not to be ringing or beeping during class) i-pods, calculators, laptops, etc.** If you have an emergency that requires you to have a cell phone out during class time then discuss this with the instructor.

No food or drinks in the class room.
VII. 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 replaced by the final exam score.

Texting during a test is not allowed and is considered cheating. A grade of “0” will be given to anyone texting during a quiz or test.

VIII. 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. Graded in-class work cannot be made up. Students arriving late should come in quietly. They are responsible to inform the instructor after class that they were present.

Two tardies or early departures count as an absence. Use of the internet, without instructor permission, e-mailing, texting, sleeping, talking during lectures, or working on materials other than the math course materials, during class time, will be counted as an absence for the day.

Withdrawal Policy

Student Initiated Withdrawal Policy

A student may drop or withdraw from a class without academic penalty during the first 60 percent 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 60 percent of a session, a student who withdraws from a class 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 reviewed and a decision made by the Director of Student Services.

**No-Show Policy**

A student must either attend face-to-face courses or demonstrate participation in distance learning courses by the last date to drop for a refund. A student who does not meet this deadline will be reported to the Admissions and Records Office and will be withdrawn as a no-show student. No refund will be applicable, and the student will not be allowed to attend/participate in the class or submit assignments. Failure to attend or participate in a course will adversely impact a student’s financial aid award.

**Instructor Initiated Withdrawal**

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 (face-to-face classes) or performance/participation (DE classes) in each class throughout the semester.

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.

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

In accordance with the No-Show Policy, a student who has not attended class or requested/accessed distance learning materials by the last day to drop the class and receive a refund must be withdrawn by the instructor during the following week. No refund will be applicable.

When an instructor withdraws a student for unsatisfactory attendance (face-to-face class) or non-performance (DE class), the last date of attendance/participation will be documented. Withdrawal must be completed within five days of a student’s meeting the withdrawal criteria. A grade of “W” will be recorded during the first sixty percent (60%) period of a course. A student 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 of reinstatement into the class may be approved only by the instructor.
IX. Disability and Diversity Statements

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 for assistance in developing a plan to address your academic needs.

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.