

NEW RIVER COMMUNITY COLLEGE

DUBLIN, VIRGINIA

COURSE PLAN

Course Number and Title: MTH 101 - Basic of Technical Mathematics I

Prepared by: Math Department _____
(Instructor) (Date)

Approved by: _____ Fall,
(Dean) (Date)

I. Course Description

Provides a foundation in mathematics with emphasis in arithmetic, basic algebra, geometry and trigonometry. Presents applications directed to specialty options. Lecture 2-5 hours per week.

II. Introduction

This is a basic mathematics course that is required for selected certificates and diplomas. It is also intended to prepare students to enter a basic algebra course. Emphasis will be placed on practical applications.

III. Student Learning Outcomes

The student will be able to:

- A. Add, subtract, multiply and divide whole numbers and signed numbers.
- B. Find all factors of a number.
- C. Apply order of operation of numbers.
- D. Evaluate formulas.
- E. Change improper fractions to whole or mixed numerals and change whole or mixed numerals to improper fractions.
- F. Reduce fractions to lowest terms and raise fractions to higher terms.
- G. Add, subtract, multiply and divide fractions.
- H. Understand the applications of fractions.
- I. Understand decimal notation and place values.
- J. Round off decimals.
- K. Add, subtract, multiply and divide decimals.
- L. Write a number as a fraction, decimal or percent.
- M. Understand applications of decimals.
- N. Understand applications of percent.
- O. Measure angles and identify polygons.

- P. Solve for measures of angles in applications.
- Q. Find the area and perimeter of quadrilateral.
- R. Use the pythagorean theorem to solve right triangles.
- S. Find the circumference and area of circles.
- T. Understand applications of circles, angles, quadrilaterals and triangles.
- U. Evaluate expressions.
- V. Simplify expressions by adding like terms.
- W. Solve equations.
- X. Solve formulas.
- Y. Understand trigonometric ratios.
- Z. Use trigonometric ratios to solve right triangles.

IV. Instructional Procedures

The instructional procedures will include lectures, discussions, problem sessions, clinical experiences, reviews and test.

V. Instructional Materials

A. Textbook:

Title: Elementary Technical Mathematics
Author: Dale Ewen, C. Robert Nelson
Publisher: Brooks/Cole
Date: 2017
Edition: Twelfth

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

VI. Course Content

- Basic Concepts
- Fractions
- Decimals
- The Metric System (part)
- Geometry (part)
- Polynomials (part)
- Equations and Formulas
- Trigonometry (part)
- Ratio and Proportion (part)

VII. Evaluation

There will be six tests during the semester and there will be a comprehensive final exam at the end of the semester. The final exam will be given in two parts and will count two test grades.

Grading Scale:

A = 91 - 100

B = 81 - 90

C = 71 - 80

D = 61 - 70

F = 0 - 60

W = Withdrawal

VIII. Attendance

Regular attendance at classes is required. When absence from a class becomes necessary, it is the responsibility of the student to inform the instructor prior to the absence whenever possible. The student is responsible for the subsequent completion of all study missed during an absence. Any instruction missed and not subsequently completed will necessarily affect the grade of the student regardless of the reason for the absence.

IX. Cheating Policy

Cheating will not be tolerated. Any student found cheating on a test or exam will receive a zero and be subject to additional disciplinary action.

X. 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.

XI. Disability and Diversity Statements

If you are a student with a documented disability who will require accommodation 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.

XII. Evacuation Procedure

Evacuation Procedure: Please note the evacuation route posted at the classroom doorway. Two routes are marked in case one route might be blocked.