MATH 138: Precalculus II

Instructor: Professor Dr. Wei-Chi Yang

Class Meeting Days and Times: MWF 10-10:50 am, Peters Hall C143

Office: Whitt 208
Office Phone Number: (540) 831-5232

Office Hours: MWF 9-9:50 am

Zoom link: **https://radford.zoom.us/j/2868245247**

Credit Hours: (3)

Prerequisites: Either 1) a grade of C or better in MATH 125, or 2) a passing score on a placement exam approved by the Department of Mathematics and Statistics.

The study of the behavior and applications of functions continues with a focus on trigonometric functions. Topics include angle measurement, basic trigonometric graphs and their transformations, trigonometric identities, and solving trigonometric equations. Complex numbers and conics are also included. Will not satisfy requirements for a major in mathematics.

Detailed Description of Content of the Course

The course will cover the following topics:

1. Transformations of functions
2. Radian and degree measure of angles
3. Trigonometric functions
   a. Definitions on right triangles and on the unit circle
   b. Reference angles
4. Trigonometric equations
   a. Recognizing and applying identities
   b. Simplifying trigonometric expressions
   c. Solving trigonometric equations
5. Graphs of trigonometric functions
   a. Period and amplitude
   b. Phase shifts, reflections, symmetries, and transformations
6. Inverse trigonometric functions
7. Law of Sines and Law of Cosines
8. Applications of trigonometry, such as polar coordinates
9. Complex numbers
10. Conics

Textbook: I will provide you handouts for each lecture. Be sure to do the homework that I assign.

Method of Evaluation:
Grading: The following grading scale will be used: 90-100 = A; 80-89 = B; 70-79 = C; 60-69 = D; 0-59 = F
Note. A = 100-93, A- = 92.9-90, B+ = 89.9-87, B = 86.9-83 and so on.
Tests and Exams: <u>No makeup exams will be allowed unless a proper document is provided</u>.

Quizzes (30%); Tests (50%), Final (20%)

Attendance Policy: Attendance is a requirement in this class. If you miss a class, you are responsible for making up any missed work. Attendance will be taken each class. Attendance means RESPONSIBILITY – I look much more favorably on students who have good attendance habits.

From Center for Accessibility Services (CAS): Students seeking academic accommodations under the Americans with Disabilities Act must register with the Center for Accessibility Services (CAS) to determine eligibility. Students qualified for academic accommodations will receive accommodation letters and should meet with each course professor during office hours, to review and discuss accommodations. To begin the registration process, complete a Student Registration Form and submit documentation to PO Box 6902, Radford, Virginia 24142, or deliver to the Russell Hall, Room 325, by fax to 540-831-6525, or by email to cas@radford.edu (See documentation guidelines). For more information, visit the Center for Accessibility Services (CAS) website or call 540-831-6350.

Honor Code All tests and the final must be pledged. The Honor Code will be strictly enforced in this course.