

Truckee Meadows Community College
Department of Mathematics

Math 127: Pre-Calculus II
(3 credit hours)

Catalog Course Description: Continuation of Math 126. Includes the study of circular functions, their graphs and applications; analytic trigonometry; the coordinate geometry of lines and conics; solving systems of equations; matrices; mathematical induction. The combination of Math 126 and Math 127 is equivalent to UNR's Math 128.

Pre-requisites: C or better in MATH 126 or equivalent or qualifying ACCUPLACER, ACT/SAT test results. A TI-83, TI-84 or better graphics calculator is required for this course.

Course Outcomes: At the end of this course, students will be able to:

1. Relate the coordinates on the unit circle to the angle using the sine, cosine, tangent, and their reciprocal functions.
2. Compute the values of the trigonometric functions of special/general angles.
3. Analyze and relate data, graphs, and formulas of the trigonometric functions.
4. Compute and apply the inverse trigonometric functions. Solve trig equations.
5. Solve right/oblique triangles.
6. Apply trigonometric identities.
7. Manipulate and apply vectors.
8. Use polar coordinates to represent curves with equations and graphs.
9. Manipulate complex numbers in trigonometric and exponential forms.
10. Analyze and relate graphs and formulas of conic sections.
11. Apply concepts of modeling in mathematics.
12. Use a graphing calculator to solve problems.
13. Describe and explain problem analyses orally and in writing.
14. Plan and carry out a project with a team, using teamwork skills.
15. Analyze and relate graphs and formulas of conic sections.
16. Apply concepts of modeling in mathematics.
17. Use a graphing calculator to solve problems.

Students with Disabilities Statement: Qualified students with documented disabilities have the right to free accommodations to ensure equal access to educational opportunities at Truckee Meadows Community College. For assistance and clarification of services provided under the ADA, contact the Disability Resource Center, Red Mountain Building Rm. 315, (673-7286).

Student Conduct Policy: Truckee Meadows Community College encourages all students to pursue academic studies and other college sponsored activities that promote intellectual growth and personal development. Students are responsible for complying with Nevada System of Higher Education (NSHE) and college guidelines. TMCC has an obligation to maintain conditions under which the work of the college can go forward freely, in accordance with the highest standards of quality, institutional integrity and freedom of expression. These standards, procedures for reporting infractions, and processes for addressing complaints and allegations are available on the TMCC web site, college catalog (appendix L) and the office of the associate dean of students (RDMT 120, 673-7114).