UVU UTAH VALLEY UNIVERSITY

EGDT 1610 Course Syllabus

For additional course information, including prerequisites, corequisites, and course fees, please refer to the Catalog: https://catalog.uvu.edu/

Semester: Spring
Course Prefix: EGDT
Course Title: Technical Math Geometry Trig

Year: 2025
Course and Section #: 1610-001
Credits: 3

Course Description

Covers more advance principles of algebra, geometry and trigonometry as they relate to problem solving on the job. Includes systems of equations, powers and roots, trigonometry functions, vectors, polynomials, quadratic equations, exponents and radicals, and circle concepts.

Course Attributes

This course has the following attributes:
☐ General Education Requirements
☐ Global/Intercultural Graduation Requirements
☐ Writing Enriched Graduation Requirements
☒ Discipline Core Requirements in Program
☐ Elective Core Requirements in Program
☐ Open Elective
Other: *Click here to enter text.*

Instructor Information

Instructor Name: Maria Christine MacKay

Student Learning Outcomes

Students will develop a working knowledge of technical mathematics, including right and oblique angle trigonometry, vectors, polynomials, quadratic equations, exponents and radicals, and circle concepts.

Course Materials and Texts

Textbook – Technical Mathematics II, McHale/Witzke
Material – Scientific calculator, Pencil

Course Requirements

Course Assignments, Assessments, and Grading Policy
Course Mode: Online
1. Modules will introduce topics. The modules will include video instruction followed by attendance quizzes. The attendance quizzes will count towards your weekly attendance grade. There are also additional optional videos and PowerPoints you can use to further your understanding on topics.

2. After you have completed a module, you should go through the textbook to do workbook problems. These are found in the text in a sequence that helps you build a proper foundation for future class material. These problems are not scored, but you should work through them before taking self-tests.
3. Each set of workbook problems is followed by a self-test that will judge your readiness to take the exams. For example, complete pages 1 through 16, and then take self-test 1 on page 16.
4. At the end of every two chapters, you will have a review module containing additional videos to prepare for the exam.
5. Tests will be online and proctored

The following grading standards will be used in this class:

CHAPTER TESTS: These will be taken online after each group of two chapters. Your lowest score will be dropped. Chapter tests cannot be taken late. If you cannot take any test when scheduled, make arrangements with the instructor to take it early. Tests will be online and proctored through Proctorio, here is a link with information about that: https://www.uvu.edu/otl/students/exam_proctoring.html

MIDTERM & FINAL: The midterm will be comprehensive for chapters 1 through 4, and the final for chapters 1 through 8. Neither may be dropped, retaken, or taken late. If you cannot take an exam at the scheduled time, make arrangements to take it early. Tests will be online and proctored through Proctorio, here is a link with information about that:
https://www.uvu.edu/otl/students/exam_proctoring.html

ATTENDANCE: You will have attendance quizzes in your modules, they can be taken early, but cannot be taken late. These will be due weekly, as shown in the modules.

Grade	Percent
A	94-100
A-	90-93
B+	87-89
B	83-86
B-	80-82
C+	77-79
C	73-76

C-	70-72
D+	67-69
D	63-66
D-	60-62
E	0-59

Assignment Categories

Activity	[Percent/Point]
Chapter Tests	50%
Midterm & Final	40%
Attendance	10%

Late Work Statement:
DEADLINES: Students must be aware of the deadlines as described in the syllabus and the calendar tool of Canvas. Late quizzes and tests will not be accepted, except in cases of emergency where the student has discussed the emergency with the instructor before the deadline.

Required or Recommended Reading Assignments
Required readings use selected chapters from course textbook

General Description of the Subject Matter of Each Lecture or Discussion
> Week 1
> - Read textbook pages 1-61
> - Lesson 1 – Standard and Reference Angles -2
> - Lesson 2 – Trigonometry (Sin/Cos/Tan)
> - Lesson 3 – Vectors -2
> - Lesson 4 – Radians
> - Lesson Attendance Quizzes
>
> Week 2
> - Read textbook pages 66-126
> - Lesson 5 – Addign Vectors Component Method
> - Lesson 6 – Adding Vectors Oblique Triangle Method
> - Lesson 7 & 8 Vectors
> - Lesson Attendance Quizzes

Week 3
- Read review materials for exam 1
- Watch exam 1 review videos
- Exam 1

Week 4
- Read textbook pages 130-166
- Lesson 9 – Exponents and Degrees
- Lesson 10 – Add/Sub/Multiply Polynomials
- Lesson 11 – Polynomial Long Division
- Lesson Attendance Quizzes

Week 5
- Read textbook pages 167-212
- Lesson 12 – Factoring 2 & 4 Terms
- Lesson 13 – Factoring 3 Terms
- Lesson 14 – Simplify Rational Expressions
- Lesson 15 – Adding and Solving Rational Expressions
- Lesson Attendance Quizzes

Week 6
- Read review materials for exam 2
- Watch exam 2 review videos
- Exam 2

Week 7
- Read review materials for midterm
- Watch midterm review videos
- Midterm

Week 8
- Read textbook pages 213-223
- Lesson 16 – part a, Solve by Factoring
- Lesson 16 – part b, Solve by Square Root
- Lesson 17 – Quadratic Formula
- Lesson 18 - Quadratic Formula Word Problems
- Lesson Attendance Quizzes

Week 9
- Read textbook pages 224-279
- Lesson 19 – Simplifying Radicals
- Lesson 20 – Like Radicals
- Lesson Attendance Quizzes

Week 10
- Read textbook pages 280-300
- Lesson 21 – Radicals as Exponents
- Lesson 22 – Decimal Exponents
- Lesson Attendance Quizzes

Week 11
- Read review materials for exam 3
- Watch exam 3 review videos
- Exam 3

Week 12
- Read textbook pages 305-341
- Lesson 23 – Equations with Radicals
- Lesson 24 – Solve for a Variable
- Lesson 25 – Systems of Equations
- Lesson Attendance Quizzes

Week 13
- Read textbook pages 342-392
- Lesson 26 – Circle Segments and Sectors
- Lesson 27 – Circle Chords and Half Tangents
- Lesson 28 – Unit Conversions
- Lesson 29 – Velocity, Degree/Min/Sec
- Lesson Attendance Quizzes

Week 14
- Read review materials for exam 4
- Watch exam 4 review videos
- Exam 4

Week 15
- Read review materials for final exam
- Watch final exam review videos

Week 16
- Final Exam

Required Course Syllabus Statements

Generative AI
The use of generative AI tools is not permitted in this course.

Using Remote Testing Software
☐ This course does not use remote testing software.

☒ This course uses remote testing software. Remote test-takers may choose their remote testing locations. Please note, however, that the testing software used for this may conduct a brief scan of remote test-takers' immediate surroundings, may require use of a webcam while taking an exam, may require the microphone be on while taking an exam, or may require other practices to confirm academic honesty. Test-takers therefore shall have no expectation of privacy in their test-taking location during, or immediately preceding, remote testing. If a student strongly objects to using test-taking software, the student should contact the instructor at the beginning of the semester to determine whether alternative testing arrangements are feasible. Alternatives are not guaranteed.

Required University Syllabus Statements

Accommodations/Students with Disabilities
Students needing accommodations due to a permanent or temporary disability, pregnancy or pregnancy-related conditions may contact UVU Accessibility Services at accessibilityservices@uvu.edu or 801-863-8747.

Accessibility Services is located on the Orem Campus in BA 110.

Deaf/Hard of Hearing students requesting ASL interpreters or transcribers can contact Accessibility Services to set up accommodations. Deaf/Hard of Hearing services can be contacted at DHHservices@uvu.edu

DHH is located on the Orem Campus in BA 112.

Academic Integrity

At Utah Valley University, faculty and students operate in an atmosphere of mutual trust. Maintaining an atmosphere of academic integrity allows for free exchange of ideas and enables all members of the community to achieve their highest potential. Our goal is to foster an intellectual atmosphere that produces scholars of integrity and imaginative thought. In all academic work, the ideas and contributions of others must be appropriately acknowledged and UVU students are expected to produce their own original academic work.

Faculty and students share the responsibility of ensuring the honesty and fairness of the intellectual environment at UVU. Students have a responsibility to promote academic integrity at the university by not participating in or facilitating others' participation in any act of academic dishonesty. As members of the academic community, students must become familiar with their rights and responsibilities. In each course, they are responsible for knowing the requirements and restrictions regarding research and writing, assessments, collaborative work, the use of study aids, the appropriateness of assistance, and other issues. Likewise, instructors are responsible to clearly state expectations and model best practices.

Further information on what constitutes academic dishonesty is detailed in UVU Policy 541: *Student Code of Conduct*.

Equity and Title IX

Utah Valley University does not discriminate on the basis of race, color, religion, national origin, sex, sexual orientation, gender identity, gender expression, age (40 and over), disability, veteran status, pregnancy, childbirth, or pregnancy-related conditions, citizenship, genetic information, or other basis protected by applicable law, including Title IX and 34 C.F.R. Part 106, in employment, treatment, admission, access to educational programs and activities, or other University benefits or services. Inquiries about nondiscrimination at UVU may be directed to the U.S. Department of Education's Office for Civil Rights or UVU's Title IX Coordinator at 801-863-7999 – TitleIX@uvu.edu – 800 W University Pkwy, Orem, 84058, Suite BA 203.

Religious Accommodation

UVU values and acknowledges the array of worldviews, faiths, and religions represented in our student body, and as such provides supportive accommodations for students. Religious belief or conscience broadly includes religious, non-religious, theistic, or non-theistic moral or ethical beliefs as well as participation in religious holidays, observances, or activities. Accommodations may include scheduling or due-date modifications or make-up assignments for missed class work.
To seek a religious accommodation, a student must provide written notice to the instructor and the Director of Accessibility Services at accessibilityservices@uvu.edu. If the accommodation relates to a scheduling conflict, the notice should include the date, time, and brief description of the difficulty posed

by the conflict. Such requests should be made as soon as the student is aware of the prospective scheduling conflict.

While religious expression is welcome throughout campus, UVU also has a [specially dedicated space](#) for meditation, prayer, reflection, or other forms of religious expression.