



Master 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: AUT

Course Title: Tech Math for Mechanics

Year: 2025

Course and Section #: 1260-001

Credits: 3

Course Description

This UVU Automotive course is a semester class for a full 15 weeks (17 calendar weeks). The course will follow the textbook chapter outline covering one concept per class period unless otherwise noted in the syllabus. See the textbook and Course Calendar below for math topics that will be covered during the course.

Students will be allowed to "test out" of any section during the course. We will spend one day prior to the start of each section reviewing the math topic. Students will then be allowed to take a section pretest and if the student scores 85% or greater on that section pretest the student will be deemed "competent" for that section and will not be required to complete any more work related to that particular section.

Students who score less than 85% on any pretest will be required to complete the section as per the course outline including attendance on the days specified in the syllabus, complete all of the section homework and must take the section test on the day listed in the syllabus.

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: Thomas O Moore

Student Learning Outcomes

Upon successful completion of this course students should be able to:

1. Demonstrate competence in basic math operations for whole numbers, decimals, fractions, and basic geometry.
 2. Use basic math skills including decimals and ratio's to solve problems related to engine measuring and calculations of engine size and power.
 3. Use basic math skills including angle measure and geometry to solve problems related to steering and suspension, tire and wheel angles and alignment.
 4. Use basic math skills including ratio's and basic algebraic functions to solve problems related to circuit construction and diagnostics including problems involving ohm's law.
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Course Materials and Texts

Cengage, Peterson, deKryger Math for the Automotive Trade Sixth Edition ISBN: 978-1-337-10181-3 (or equivalent)

Course Requirements

Course Assignments, Assessments, and Grading Policy

Academic Standards

Students are expected to adhere to the UVU academic standards, code of conduct, and act in a professional manner at all times. Students are expected to be in class, every day, on time, and prepared to learn. Student cheating or plagiarism will not be tolerated and students who are caught will receive a zero for any assignment cheated on. The use of Artificial Intelligence (AI) on any writing assignment will be considered Academic Dishonesty which is cheating. If you use AI to complete any assignment you will only receive credit for the portion of work you actually complete. For example if you complete 65% of the specific assignment you will receive 65% of the actual score after the assignment is graded.

Chapter Readings and Quizzes

The schedule lists the chapters that will be studied in class. Homework readings and homework assignments are due each week on Saturday evening as listed in the course schedule. UVU policy states that you should have two hours of independent study (homework) for every hour you spend in class. Daily quizzes will be given on the assigned readings and/or the material presented in class.

Attendance

Role will be taken each day at the beginning and/or the end of class. Students are considered late if they miss role call at the beginning of class. Every day late counts as 1/3 of an absence. Missing more than half of class is an absence. Students who fall below 70% attendance for any combination of absences or late will receive a zero for their overall attendance score and will be required to retake the course. Excused absences must be approved at least 2 school days prior to the absence. Emergencies will be considered case by case at the discretion of the instructor.

Final Exam

A comprehensive final exam will be given on the last day of class.

Student Grading

As your instructor I only assign grades. You (the student) earn your grade and I will assign you the grade you earn. Your grade will not be padded nor will begging or whining be part your final grade. You will have opportunity to demonstrate academic competence in five areas graded: Attendance, Homework, Classwork (quizzes), Student Research, and the Final Exam. Each of these areas are weighted and no one area will kill your grade. However, poor performance (entirely up to you) in more than one area will jeopardize your overall grade.

Attend class every day on time. Complete your assignments on time. Do whatever you need to do to thoroughly understand the concepts and principles presented and you will be successful. Talk to me if there is any reason you cannot do this.

Grade Breakdown

Attendance* = 15% Homework = 25% Classwork = 20% Research = 20% Final Exam = 20%

A 100.0% - B+ 89.9% - C+ 79.9% - D+ 69.9% - E 59.9% -
94.0% 87.0% 77.0% 67.0% 0.0%

A- 93.9% - B 86.9% - C 76.9% - D 66.9% -
90.0% 84.0% 74.0% 64.0%

B- 83.9% - C- 73.9% - D- 63.9% -
80.0% 0.0% 60.0%

*See the attendance policy above.

Make-up Work / Late Work

Make up work will be allowed only for extenuating circumstances as per instructor discretion. Assignments missed because of unexcused absences cannot be made up. Do not ask to make up missed class quizzes for unexcused absences. Homework assignments are due on the date listed in canvas. 10% will be deducted from the assignment score for each day late to a minimum 40% score.

Extra Credit

Students should complete all assigned tasks prior to working on any other projects. Additional work or personal projects must directly correlate to the course of study and current topic. Extra credit is limited to an increase of one grade step after all assigned work is completed.

Required or Recommended Reading Assignments

Week	Day	Date	Chapter/Pages	Section	Homework Due Date
1	1	Mon	6-Jan	Course Overview	Syllabus FDOS
	2	Wed	8-Jan	Review	Whole Number Principles
2	3	Mon	13-Jan	PreTest	Whole Numbers Ch 1
	4	Wed	15-Jan	Adding Whole Numbers	1-1
3	5	Mon	20-Jan	No School - Human Rights Day	31-Jan
	6	Wed	22-Jan	Subtracting Whole Numbers	1-2 31-Jan
4	7	Mon	27-Jan	Multiplication of Whole Numbers	1-3 31-Jan
	8	Wed	29-Jan	Division of Whole Numbers	1-4 31-Jan
5	9	Mon	3-Feb	Section Test	Whole Numbers
	10	Wed	5-Feb	Review	of Decimal Principles
6	11	Mon	10-Feb	Pre-Test	Decimals
	12	Wed	12-Feb	Adding & Subtracting	Decimals 2-1 & 2-2 28-Feb
7	13	Mon	17-Feb	No School - Presidents Day	
	14	Wed	19-Feb	Multiplying Decimals	2-3 28-Feb

8	15	Mon	24-Feb	Dividing Decimals	2-4	28-Feb
	16	Wed	26-Feb	Section Test - Decimals		
9	17	Mon	3-Mar	Review of Fraction Principles		
	18	Wed	5-Mar	Pretest - Fractions		
10	19	Mon	10-Mar	No School - Spring Break		
	20	Wed	12-Mar	No School - Spring Break		
11	21	Mon	17-Mar	Fraction Basics	3-1	4-Apr
	22	Wed	19-Mar	Adding Fractions	3-2	4-Apr
12	23	Mon	24-Mar	Subtracting Fractions	3-3	4-Apr
	24	Wed	26-Mar	Multiplying Fractions	3-4	4-Apr
13	25	Mon	31-Mar	Division of Fractions	3-5	4-Apr
	26	Wed	2-Apr	Section Test - Fractions		
14	27	Mon	7-Apr	Review of Geometry & Metrics		
	28	Wed	9-Apr	Pretest - Geometry & Metrics		
15	29	Mon	14-Apr	Angles	4-1	23-Apr
	30	Wed	16-Apr	Circles and Cylinders	4-2	23-Apr
16	31	Mon	21-Apr	The Metric System	4-3	23-Apr
	32	Wed	23-Apr	Section Test - Geometry & Metrics		
17	33	Mon	28-Apr	Review for Final Exam		
	34	Wed	30-Apr	Final Exam		

General Description of the Subject Matter of Each Lecture or Discussion

Week	Day	Date	Chapter/Pages	Section	Homework Due Date
1	1	Mon	6-Jan	Course Overview Syllabus FDOS	
	2	Wed	8-Jan	Review - Whole Number Principles	
2	3	Mon	13-Jan	PreTest - Whole Numbers Ch 1	
	4	Wed	15-Jan	Adding Whole Numbers	1-1
3	5	Mon	20-Jan	No School - Human Rights Day	
	6	Wed	22-Jan	Subtracting Whole Numbers	1-2
4	7	Mon	27-Jan	Multiplication of Whole Numbers	1-3
	8	Wed	29-Jan	Division of Whole Numbers	1-4
5	9	Mon	3-Feb	Section Test Whole Numbers	
	10	Wed	5-Feb	Review of Decimal Principles	

6	11	Mon	10-Feb	Pre-Test - Decimals		
	12	Wed	12-Feb	Adding & Subtracting Decimals	2-1 & 2-2	28-Feb
7	13	Mon	17-Feb	No School - Presidents Day		
	14	Wed	19-Feb	Multiplying Decimals	2-3	28-Feb
8	15	Mon	24-Feb	Dividing Decimals	2-4	28-Feb
	16	Wed	26-Feb	Section Test - Decimals		
9	17	Mon	3-Mar	Review of Fraction Principles		
	18	Wed	5-Mar	Pretest - Fractions		
10	19	Mon	10-Mar	No School - Spring Break		
	20	Wed	12-Mar	No School - Spring Break		
11	21	Mon	17-Mar	Fraction Basics	3-1	4-Apr
	22	Wed	19-Mar	Adding Fractions	3-2	4-Apr
12	23	Mon	24-Mar	Subtracting Fractions	3-3	4-Apr
	24	Wed	26-Mar	Multiplying Fractions	3-4	4-Apr
13	25	Mon	31-Mar	Division of Fractions	3-5	4-Apr
	26	Wed	2-Apr	Section Test - Fractions		
14	27	Mon	7-Apr	Review of Geometry & Metrics		
	28	Wed	9-Apr	Pretest - Geometry & Metrics		
15	29	Mon	14-Apr	Angles	4-1	23-Apr
	30	Wed	16-Apr	Circles and Cylinders	4-2	23-Apr
16	31	Mon	21-Apr	The Metric System	4-3	23-Apr
	32	Wed	23-Apr	Section Test - Geometry & Metrics		
17	33	Mon	28-Apr	Review for Final Exam		
	34	Wed	30-Apr	Final Exam		

Required Course Syllabus Statements

Generative AI

The use of Artificial Intelligence or AI, though not plagiarism, is considered by UVU to be academic dishonesty and cheating. Any papers written entirely by AI will receive a zero score. Any papers partially written by AI will receive points based on the percentage of actual student writing as determined by UVU CopyLeaks plagiarism and AI detection software. You are free to use AI in research but any writing assignments/papers must be your own original work.

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.