



Course Syllabus
SEMESTER
School of Science, Technology, Engineering, and Mathematics

Course Name:	Mathematics for the Trades
Course & Section Number:	MTH 143-XXX
Meeting Day(s) & Time(s):	WEB
Credits:	3
Contact Hours:	3
Text:	Open Educational Resource(OER)
Instructor's Name:	
Office Hours & Location:	
OCC Phone:	
OCC Email:**	
Additional Contact Information:	Message in Blackboard Shell

**Please use only Owens email for course communications.

Catalog description:

This course studies fundamental operation with signed numbers; ratios and proportions; algebraic operations of polynomials; algebraic equations; exponents and radicals; plane and solid geometry including the calculations of perimeters, areas, and volumes; trigonometric ratios; and statistics.

Prerequisite/Corequisites:

MTH 033 or equivalent

Course Materials:

Textbook: Open Education Resource: MyOpenMath access required. MyOpenMath link on Blackboard. Textbook and Homework Access are FREE!

Calculator: Scientific calculator capabilities are required. You may purchase a calculator (such as the TI 30-series), use an online calculator (such as: [Scientific Calculator](#) or [Calculator Soup](#)) or use your cell phone.

Technology

You will need access to a computer, reliable Internet connection, capability to take screenshots, and the ability to download files into BlackBoard and MyOpenMath.

OER and Owens Community College Library Resources (*Open Educational Resources are free online materials for instructor and student use. Some OER material may be available in print in the Owens Community College Library.*)

What You Will Learn in the Course

Course Objectives:

This course will provide the student with the working knowledge of basic mathematical topics as applied to skilled trades.

Student Learning Outcomes:

Student will upon the completion of this course:

Outcome	Where Assessed (List assignments, exams, discussions; items must be graded.)
Solve problems using, ratios, proportions, and percentages.	HW 5, HW 6 Exam 2, Final Exam
Perform calculations involving signed numbers, exponents, and square roots.	HW 1, HW 2 Exam 1, Final Exam
Perform calculations involving algebraic expressions and formulas.	HW 4 Exam 1, Final Exam
Solve simple linear equations.	HW 3, Exam 1, Final Exam
Convert between different units of measurements.	HW 7, HW 8 Exam 2, Final Exam
Calculate the perimeter and area of plane geometric figures.	HW 9-HW 12 Exam 3, Final Exam
Calculate the volume of solid geometric figures.	HW 13-HW 16 Exam 4, Final Exam
Use trigonometric ratios to solve right triangles.	HW 17, HW 18 Exam 5, Final Exam
Use the law of sines and the law of cosines to solve oblique triangles (optional)	
Interpret statistical charts and calculate the mean, median, and mode of statistical data.	HW 19 Final Exam

Institutional General Education Competencies:

As a student at Owens Community College, you will take General Education courses as part of your degree program. While specific to the General Education courses, will be reinforced in many of your degree program major courses and may be measured in your capstone course(s) and others as identified.

Competency	Where Assessed
Communicate effectively.	HW 1-HW 19, Exam 1-5, Final Exam
Act with professional responsibility.	HW 1-HW 19, Exam 1-5, Final Exam
Demonstrate sensitivity to others' beliefs and values.	HW 1-HW 19, Exam 1-5, Final Exam
Think analytically, critically, and creatively.	HW 1-HW 19, Exam 1-5, Final Exam

Technology, Lab, and File Requirements:

You will need

- Access to a computer
- Reliable internet connection
- Capability to take screenshots
- Ability to download files into BlackBoard and MyOpenMath
- Ability to upload files into BlackBoard and MyOpenMath
- Ability to submit work in BlackBoard and MyOpenMath

Academic Support

Disability Services Resource Center: If you have a disability or acquire one, you may be entitled to receive reasonable accommodations intended to assure you an equal opportunity to participate in and benefit from the program. To receive more information or to register for accommodations, please contact the Disability Resource Center at 567-661-7007, email disability@owens.edu, visit <https://www.owens.edu/disability/>, or stop by College Hall 124.

Tutoring Services: Owens Community College offers academic tutoring and assistance in a variety of subjects including: accounting, computing, economics, mathematics, science, and writing. For more information go to: <https://www.owens.edu/successcenters/>.

Counseling Services: Counseling Services provides assistance to students experiencing personal, educational, interpersonal/relationship, family, social, or psychological difficulties. If you feel you may benefit from this service, please contact them at counselingservices@owens.edu. More information is at <https://www.owens.edu/counseling/>.

Campus and Community Connections: The Center for Campus and Community Connections (College Hall 151) is a walk-in office created to provide retention support through resource stability initiatives and community connections. Go here for more information:

<https://www.owens.edu/connection/> or contact connections@owens.edu

Owens Library: The Owens Library offers two locations (Toledo and Findlay) as well as online resources. For more information visit <https://www.owens.edu/library/>.

Students can find more information on campus resources, student support, student life, and security at this [link](#).

General Information

Student Code of Conduct: All students are expected to follow Owens Community College's [Student Code of Conduct](#), which includes academic honesty, encompassing plagiarism. See the [Board Policy](#) for more information.

Anti-Discrimination and Harassment & Title IX/Sexual Misconduct: All students, faculty, and staff are expected to follow Owens Community College's [Anti-Discrimination and Harassment Policy](#) and the College's [Title IX Policy/Sexual Misconduct Procedures and Guidelines](#). The College strictly prohibits and will not tolerate harassment, discrimination, intimidation, or hostile/offensive working or learning environments.

Religious Accommodations: A student seeking an accommodation for an absence permitted under Ohio's Testing Your Faith Act must provide the instructor with a written email notice with the specific dates for an absence, and must do so not later than fourteen (14) days after the first day of instruction. Alternative accommodations are not retroactive, and no academic penalty will be imposed for an absence under the policy*. The request for an alternative accommodation will be kept confidential. Students with questions about a religious accommodation under Ohio's Testing your Faith Act may contact the College's Office of Academic Affairs: provost@owens.edu. The policy may be found on the Owens website: [3358:11-2-63 Accommodation](#) for a Student Absence for the Observance of Religious Beliefs and Practices Policy.

Document Collection: Throughout the semester, your instructors may ask for a variety of assignments including tests and/or quizzes for student learning of institutional general education competencies or program assessment. Please save all your class materials until the end of the semester.

Classroom Admittance: OCC classes shall only be attended by the officially registered OCC students or perspective students, instructor of record, guest lecturer, or substitute. Visitors are not permitted to be in the classroom and should not be invited to attend or participate in the class. See [FERPA](#) regulations for more information.

Use of AI Tools: This course permits you to use artificial intelligence (AI) tools, such as chatbots, text generators, paraphrasers, summarizers, or solvers, to get guidance on assignments, as long as you do so in an ethical and responsible manner. Essentially, you can think of these tools as

ways to help you learn but not to entirely create work for assignments like discussion board posts, essays, presentation slides, and so on. AI is more like your tutor or TA, not a replacement for your independent thinking.

This means that you must:

- Not use AI tools to replace your own thinking or analysis or to avoid engaging with the course content.
- Cite or explain any AI tools you use. Provide the name of the AI tool, the date of access, the URL of the interface, and the specific prompt or query you used to generate the output.
- Be transparent and honest about how you used the AI tool and how it contributed to your assignment. Explain what you learned from the AI tool, how you verified its accuracy and reliability, how you integrated its output with your own work, and how you acknowledged its limitations and biases.

You are accountable for any mistakes or errors made by the AI tool. Always check and edit the output before submitting your work. If you discover any inaccuracies or inconsistencies in the output after submission, notify the instructor immediately and correct them as soon as possible.

Using AI tools in an unethical or irresponsible manner, such as copying or paraphrasing the output without citation or transparency, using the output as your own work without verification or integration, or using the output to misrepresent your knowledge or skills, is considered a form of academic dishonesty and will result in a zero grade for the assignment and possible disciplinary action. If you have any questions about what constitutes ethical and responsible use of AI tools, please consult with the instructor **before** submitting your work. NOTE: Some instructors will also list specific acceptable and unacceptable uses or include a statement like “All written assignments, projects, and exams must be completed independently.”

If you have any questions about what constitutes ethical and responsible use of AI tools, please consult with the instructor before submitting your work.

Student Responsibilities & Instructor Expectations

Student Responsibility:

- Students will be required to complete the Homework Assignments on MyOpenMath during the specified time window. Exams will be completed on MyOpenMath. During class students will be able to ask questions about the material covered in class. If you are going to be absent, please notify the instructor prior to missing the class, if possible. Please look at the assignment calendar to see what was missed (topic, assignments, etc.) and contact the instructor if you have any questions.

Email or Blackboard message are the best method to contact me outside of office hours, which are listed above.

I expect questions so do not hesitate to reach out when you need to.

I want you to do your best in this class. If you have any questions or need any help, please

contact me, so I can assist you.

Instructor Expectations:

- Attendance: Class will begin and end on time. If class needs to be canceled for any reason, I will notify students as soon as possible. I will take attendance every day.
- Grading Assignments: Assignments will be graded and returned/recorded in a timely manner. You can check your grades for all assignments on Blackboard throughout the semester.
- Answering emails: I will do my best to respond to emails within 24 to 48 hours. I can only respond to emails generated from your Owens email account.
- Office hours: These times are designed for me to be available to meet with and assist you, outside of normal class time, with any concerns/questions you may have regarding the course.

Classroom Grading:

Assignment Calendar:

- The Assignment Calendar gives a brief description of material to be covered, as well as the dates of homework and tests.
- It is located at the end of this document.

Homework (20%)

- Each question provides opportunities for immediate feedback and multiple attempts to complete at mastery level (100%).
- Please see the Assignment Calendar at the end of the syllabus or the due dates in MyOpenMath for the exact dates and times.
- You will still have access to your homework for review purposes through the MyOpenMath gradebook after the due date.

Exams (40%)

- Exams will be completed on MyOpenMath.
- You have only one attempt per question on the Exams.
- You must complete the Exam in the time allowed

Final Exam (20%)

- The final Exam will be completed on MyOpenMath.

How Grades are Determined and Major Assignments

The final course grade is to be computed using the following weights.

Evaluation Measure	Student Learning Outcomes Assessed	Value
Homework Assignments	1-8, 10	20%
Exams	1-8	60%
Final Exam	1-8, 10	20%

Grading Procedure:

Grades will be calculated on the following scale.

Grade	Points
A	90% and above
B	80% to less than 90%
C	70% to less than 80%
D	60% to less than 70%
F	Less than 60%

Tentative Class Assignments:

Homework and Test Schedule

Assignment	Dates	Topic
HW 1	DATE	Real Numbers
HW 2	DATE	Order of Operations
HW 3	DATE	Linear Equations
HW 4	DATE	Formulas
Exam 1	DATE	HW 1-HW 4
HW 5	DATE	Ratio and Proportion
HW 6	DATE	Percent
HW 7	DATE	Significant Digits
HW 8	DATE	Conversions
Exam 2	DATE	HW 5-HW 8
HW 9	DATE	Angles
HW 10	DATE	Perimeter/Area Quadrilaterals
HW 11	DATE	Perimeter/Area Triangles
HW 12	DATE	Circumference/Area Circles
Exam 3	DATE	HW 9-HW 12
HW 13	DATE	Surface Area/Volume Prisms
HW 14	DATE	Surface Area/Volume Cylinders and Spheres
HW 15	DATE	Surface Area/Volume Pyramids
HW 16	DATE	Surface Area/Volume Cones
Exam 4	DATE	HW 13-HW 16

HW 17	DATE	Radians/Sectors
HW 18	DATE	Right Triangle Trigonometry
Exam 5	DATE	HW 17-HW 18
HW 19	DATE	Central Tendency/Graphs
Final Exam	DATE	HW 1-HW 19

Disclaimer: The instructor reserves the right to amend this syllabus as deemed necessary and will communicate such amendment to the students in the course. Please note that while unlikely, there is a possibility courses might need to change the delivery method due to external issues like public health concerns, weather issues, etc. If this happens, the college will communicate any changes via email and/or other communication methods.