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

Course Name:	College Algebra (TMM 001)
Course & Section Number:	MTH 170-XXX
Meeting Day(s) & Time(s):	
Credits:	4
Contact Hours:	4
Instructor's Name and Credentials:	
Office Hours & Location:	
OCC Phone:	
OCC Email:*	

**Please use only Owens email for course communications.

Catalog Description:

This course, as a prerequisite for Calculus, addresses equations and inequalities, functions and relations, exponential and logarithmic functions, systems of equations, and topics in analytic geometry.

Prerequisite/Corequisites:

MTH 096 or equivalent

Course Materials:
A Graphical Approach to Algebra and Trigonometry, 7th edition, John Hornsby, Margaret Lial, Gary Rockswold. Pearson 2019. **The MyMatLab access code is required and provides access to the e-Book without additional cost.**

A graphing calculator such as a TI 84 is required. Graphing calculators with CAS capabilities are not permitted.

What You Will Learn in the Course

Course Objectives:

The primary objectives of this course are to reinforce and build upon the algebra introduced to the students in the previous courses and to present new concepts in algebra and analytic geometry so that, with a Trigonometry course the students will be prepared for their first Calculus class.

Student Learning Outcomes:

1. Analyze functions. Routine analysis includes discussion of domain, range, zeros, general function behavior (increasing, decreasing, extrema, etc.). In addition to performing rote processes, the student can articulate reasons for choosing a particular process, recognize function families and anticipate behavior, and explain the implementation of a process (e.g., why certain real numbers are excluded from the domain of a given function).
2. Convert between different representations of a function.
3. Perform operations with functions including addition, subtraction, multiplication, division, composition, and inversion; connect properties of constituent functions to properties of the resultant function; and resolve a function into a sum, difference, product, quotient, and/or composite of functions.
4. Recognize function families as they appear in equations and inequalities and choose an appropriate solution methodology for a particular equation or inequality, as well as communicate reasons for that choice.
5. Use correct, consistent, and coherent notation throughout the solution process to a given equation or inequality.
6. Distinguish between exact and approximate solutions and which solution methodologies result in which kind of solutions.
7. Demonstrate an understanding of the algebraic, functional, and geometric views of equation solutions. Solutions to equations can simultaneously serve multiple purposes by representing numbers satisfying an equation, zeros of a function, and intersection points of two curves.
8. Solve for one variable in terms of another.
9. Solve systems of equations using substitution and/or elimination.
10. Purposefully create equivalences and indicate where they are valid.
11. Recognize opportunities to create equivalencies in order to simplify workflow.
12. Interpret the function correspondence and behavior of a given model in terms of the context of the model.

13. Create linear models from data and interpret slope as a rate of change.
14. Determine parameters of a model given the form of the model and data.
15. Determine a reasonable applied domain for the model, as well as articulate the limitations of the model.
16. Anticipate the output from a graphing utility and make adjustments, as needed, in order to efficiently use the technology to solve a problem.
17. Use technology to verify solutions to equations and inequalities obtained algebraically.
18. Use technology to obtain solutions to equations and inequalities which are difficult to obtain algebraically and know the difference between approximate and exact solutions.
19. Use technology and algebra in concert to locate and identify exact solutions.
20. Recognize when a result (theorem) is applicable and use the result to make sound logical conclusions and to provide counter-examples to conjectures.

Academic Support

Disability Services Resource Center: If you have a disability or acquire one, you may be entitled to receive reasonable accommodation 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 in College Hall 116 at 567-661-7007 or email https://www.owens.edu/disability/

Tutoring Services: Toledo-area Campus: Learning Commons College Hall Room 173 (Enter Library CH170 and turn right). Findlay-area Campus: Education Center Room 149Both centers offer Walk-in/Face-to-Face, or Online by appointment. To schedule an appointment or view walk-in hours, please go to https://www.owens.edu/tutoring/

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/.

General Information

Student Code of Conduct: All students are expected to follow Owens Community College's Student Code of Conduct. If you are unfamiliar with the code, it can be found at Student Conduct - Owens Community College

Anti-Discrimination and Harassment & Title IX/Sexual Misconduct: All students, faculty, and staff are expected to follow Owens Community College's Antidiscrimination and Harassment Policy and the College's Title IX/Sexual Misconduct Procedures and Guidelines. The college strictly prohibits and will not tolerate harassment, discrimination, intimidation, or hostile/offensive working or learning environments. If you are unfamiliar with the Anti-Discrimination and Harassment Policy, it can be found at: Owens Community College - Owens Community College
If you are unfamiliar with the Title IX/Sexual Misconduct Procedures and Guidelines, it can be found at: 11-4-17-Title-IX-Sexual-Misconduct-Procedures-and-Guidelines.pdf

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.

Inclement Weather Policy: In the event that the College closes due to inclement weather, all on-campus, hybrid, and synchronous mathematics classes will be cancelled. Asynchronous classes will not be affected. If the decision is made to close the College, a public announcement will be communicated via local television, social media, and Owens Alert. Students will not receive individual class cancellation notices.

If the College is open, all on-campus, hybrid, and synchronous classes will meet as regularly scheduled. For addition information about the communication of closings or to learn about Owens Alert, visit https://www.owens.edu/news/weather.html

How Grades are Determined and Major Assignments

Grading Procedure

The grade will be based on:

4 Tests (125 each) 500=(50%)

8 Homework (37.5 each) 300=(30%)

Final Exam 200=(20%)

Total Possible points (Tests + Homework + Final Exam) =1000=(100%)

Grades will be calculated on the following scale:

90% and Above	A
80% to Less than 90%	B
70% to Less than 80%	C
60% to Less than 70%	D
Less Than 60%	F

Tentative Course Schedule

Week	SLO	Section	Topic
1	1,2	1.1, 1.2, 1.3	The Rectangular Coordinate System, Introduction to Relations and Functions, Linear Functions,
2	5,13,14	1.4, 1.5, 1.6	Equations of Lines, Linear Inequalities, Applications of Linear Functions HW#1 due
3	1,2,3	2.1, 2.2	Graphs of Basics Functions, Graphing Using Transformations
4	11	2.3, 2.4, 2.5	Graphing Using Transformations, Absolute Value Functions,
5	1,2,3	2.5, 2.6	Piecewise Functions, Composition of Functions, HW#2 due-Test#1
6	7,12	3.1, 3.2	Complex Numbers, Quadratic Functions and Graphs
7	4,5,6,7,15,17,20	3.3, 3.4	Quadratic Equations and Inequalities, Applications of Quadratics HW#3 due
8	6,16,17,18,20	4.1, 4.2	Higher Degree Polynomials, Synthetic Division
9	7,19,20	4.3, 4.4	Remainder and Factor Theorems Fundamental Theorem of Algebra HW#4 due -Test#2
10	2,4,7,10,12	5.1, 5.2, 5.3	Rational Functions
11	4,15,16	5.4, 5.5	Power and Root Functions HW#5 due
12	1,3,8,12	6.1, 6.2, 6.3, 6.4	Inverse Functions, Exponential Functions, Logarithmic Functions

13	4,5,6,10,11,14	6.5, 6.6	Exponential and Logarithmic Equations HW#6 due - Test#3
14	4,5,6,7,8,9,11,15,16	7.1, 7.2	Systems of Equations, Solution of Linear Equations in Three Variables
15		7.1, 7.2 All above	HW#7 due - Test#4 Final Exam Practice HW#8 due
16	All above	All above	Final Exam due -Tuesday DATE at TIME

Disclaimer: "The instructor reserves the right to amend this syllabus as deemed necessary and will communicate such amendment to the students in the course."

About The Assignments and Studying;

1. To do assignments we will be using Pearson.com and NOT Owens Blackboard System. You DON'T login to the blackboard to get into the Pearson website to study and do the assignments. Your official course site is https://mlm.pearson.com and is available NOW. Please follow the steps provided below to register TODAY and try to be familiar with the site. You will be able to access the textbook, sample tests, videos, practice exercises, and more.

   HW assignments are not timed and can be accessed for unlimited number of times, and each problem can be solved over and over until you get it correct by the due date

   The tests are timed (2.5 hours without breaks) and must be completed in one sitting.

2. Technical Support - If you are having technical trouble accessing the course, please contact Pearson;
Customer Technical Support: Click here for 24/7 Support

Please DO NOT contact Owens Help Desk or your professor with technical trouble related to Pearson.

3. PLEASE NOTE that when you purchase the Access CODE ALONE; you will have access to the book for FREE. The book is placed online in digital format under **E-Book** in the menu in Pearson. You can read and print any pages from the book.

Student Registration Instructions

To register for MTH170-XXX (web):

1. Go to https://mlm.pearson.com/enrollment/NAME

(if you are asked about using LMS you should say NO)

2. Sign in with your Pearson student account or create your account.

3. Select any available access option, if asked.

   a- Enter a prepaid access code that came with your textbook or from the bookstore.

b- Buy instant access using a credit card or PayPal.

c- Select Get temporary access without payment for 14 days. (you will see this option at the bottom of the screen written in light blue)

4. Select Go to my course.

5. Select MTH170 -227(web) from My Courses.

If you contact Pearson Support, give them the course ID: NAME

To sign in later:

NOTE: Don't log in to the Blackboard Has nothing to do with it!

1. Go to https://mlm.pearson.com

2. Sign in with the same Pearson account you used before.

3. Select MTH170-XXX (web) from My Courses.