

McLennan COMMUNITY COLLEGE

WACO, TEXAS

**COURSE SYLLABUS
AND
INSTRUCTOR PLAN
TERI BARNES**

**TRIGONOMETRY
MATH 1316 SECTION O280
This is an Online Summer Course**

SUMMER II 2025

Course Description:

Provides a study of trigonometric functions and their graphs, trigonometric identities and equations, solutions of triangles, complex numbers, polar coordinates, vectors, analytic geometry, and applications of each. Graphing calculator required.

Semester Hours 3 (3 lec).

"AN EQUAL OPPORTUNITY INSTITUTION"

TRIGONOMETRY
MATH 1316

Prerequisites and/or Corequisites:

Prerequisite: MATH 1314, or high school precalculus, or consent of division director.

Course Notes and Instructor Recommendations:

This course has a major component (MyMathLab) that requires a good working knowledge of the computer. Online access is needed at a speed that will facilitate streaming video and downloading of materials

Instructor Information:

Instructor Name:	Teri Barnes
MCC E-mail:	tbarnes@mclennan.edu
Office Phone Number:	254 299-8880
Office Location:	MATH 210
Office Hours:	TBA

Required Text & Materials:

This course is being offered as Inclusive Access—this means you do not purchase a book. The electronic course information is included in tuition payments.

No hard copy text required



Graphing calculator required.

MCC Bookstore Website: <http://www.mclennan.edu/bookstore/>

Methods of Teaching and Learning:

MyMathLab is the online component that will house the course information. Homework will be done online in this environment. Lecture notes, reference materials, and instructor videos, as well as text videos/resources are available there as well.

Course Objectives and/or Competencies:

Upon completion of Math 1316, the student will be able to:

1. Use the basic terminology trigonometry and convert between degrees and radians
2. Perform calculations and applications using trigonometric ratios based on right triangles
3. Graph the trig functions, including vertical shift, phase shift, change in period, and change in amplitude
4. Establish, prove, and apply trigonometric identities
5. Solve trigonometric equations
6. Apply the law of sines and law of cosines to solve triangles, find the area of triangles, and solve application problems
7. Convert between polar and rectangular coordinates
8. Manipulate angle formulas including half angle, double angle, sum and difference
9. Solve application problems involving angular and linear speed, trigonometric functions and vectors
10. Graph polar equations

TRIGONOMETRY
MATH 1316

Course Attendance/Participation Guidelines:

If a student is not in attendance in accordance with the policies/guidelines of the class as outlined in the course syllabus as of the course census date, faculty are required to drop students from their class roster prior to certifying the respective class roster. A student's financial aid will be re-evaluated accordingly and the student will only receive funding for those courses attended as of the course census date.

Before the 60% point of the semester, a student who is absent for 25% or more of a face-to-face or blended course or who misses 25% or more of assigned work for an online course will be withdrawn from the course with a grade of W. A student may also request to be withdrawn with a grade of W before the 60% point of the semester. After the 60% point of the semester, the student may request to be withdrawn if the student is passing, or be assigned the final grade earned at the end of the semester after grades have been updated to reflect missing work

Suggested Course Outline or Schedule:

Dates	Lecture/Work	Tests/Objectives
Week 1	1.1 Angles 1.2 Angle Relationships and Similar Triangles 1.3 Trigonometric Functions 1.4 Using Definitions of Trig Functions	Exam Ch 1
	2.1 Trig Functions of Acute Angles 2.2 Trig Functions of Non-Acute Angles 2.3 Finding Trig Function Values with Calculator 2.4 Solving Right Triangles	Exam Ch 2
Week 2	3.1 Radian Measure 3.2 Applications of Radian Measure 3.3 Unit Circle 3.4 Linear and Angular Speed	Exam Ch 3
	4.1 Graphs of Sine and Cosine Functions 4.2 Translations of Sine and Cosine 4.3 Graphs of Tangent and Cotangent 4.4 Graphs of Secant and Cosecant	Exam Ch 4
Week 3	5.1 Fundamental Identities	

TRIGONOMETRY
MATH 1316

	5.2 Verifying Trig Identities 5.3 Sum and Difference for Cosine 5.4 Sum and Difference for Sine and Tangent 5.5 Double Angle Identities 5.6 Half Angle Identities	Exam Ch 5
Week 4	6.1 Inverse Circular Functions 6.2 Trig Equations 6.3 Trig Equations II Review	Exam Ch 6
	7.1 oblique Triangles and Law of Sines 7.2 Ambiguous Case and Law of Sines 7.3 Law of Cosines	Exam Ch 7
Week 5	8.1 Complex Numbers 8.2 Trig (Polar) Form of Complex Numbers 8.5 Polar Equations and Graphs	Exam Ch 8
		Final Exam

Course Grading Information:

1. Homework: There is a homework assignment for each section that is covered during the semester. Since the test questions will be similar to the homework problems they will be a good source of practice for the tests. Homework due dates will be posted online. You can work on homework assignments as many times as you want to improve your grade before the due date. Once the due date passes, your score is frozen. You can still access problems to practice, but you can't improve your score. Your homework average will count as 30% of your total average.
2. Tests: Eight chapter tests plus a comprehensive Final. Tests will count as 50% of the final average.

Before each test is available, all homework assignments must be completed with at least a 70% score for that unit. A score of 0 will be assigned to that test if the student has not met this prerequisite for testing by the indicated due date.

- There will be a time limit for the test
- Tests may be in a style matching the homework questions.

TRIGONOMETRY
MATH 1316

3. Final Exam: A cumulative final exam is required. It will count 20% of the final average.
4. You can check your grades using the “Gradebook” button on the left side of the MathLab component. The standard grading scale applies:

90 – 100 = A 80 – 89 = B 70 – 79 = C 60 – 69 = D 59 and below = F

Late Work, Attendance, and Make Up Work Policies:

Due dates are set for all homework and test dates are scheduled. If students do not make the deadlines, those grades become zero. Instructor has the right to adapt under special circumstances.

In this online course—attendance will be based on participation. You must work each week (either on homework or test). If you do not complete work in a week—that counts as an absence. You are allowed 2 such weeks, but if you receive a THIRD absence, you could be dropped for attendance issues.

Student Behavioral Expectations

Students are expected to maintain classroom decorum, that includes respect for other students and the instructor, prompt and regular attendance, and an attitude that seeks to take full advantage of the education opportunity.

MCC Attendance Policy:

[Click Here for the MCC Attendance/Absences Policy](https://www.mclennan.edu/highlander-guide/policies.html)

(<https://www.mclennan.edu/highlander-guide/policies.html>)

Click on the link above for the college policies on attendance and absences. Your instructor may have additional guidelines specific to this course.

TRIGONOMETRY
MATH 1316

07/02/2024



ACADEMIC RESOURCES/POLICIES

Accommodations/ADA Statement:

Any student who is a qualified individual with a disability may request reasonable accommodations to assist with providing equal access to educational opportunities. Students should contact Accommodations (Disability Services) as soon as possible to provide documentation and make necessary arrangements. Once that process is completed, appropriate verification will be provided to the student and instructor. Please note that instructors are not required to provide classroom accommodations to students until appropriate verification has been provided by the Accommodations Coordinator. For additional information, please visit www.mclennan.edu/disability

Students with questions or who require assistance with disabilities involving physical, classroom, or testing accommodations should contact:

disabilities@mclennan.edu (254)299-8122 Room
319, Student Services

Title IX:

Title IX of the Education Amendments of 1972 is a Federal civil rights law that prohibits discrimination on the basis of sex in educational programs and activities that receive Federal funds. We care about your safety and value an environment where students and instructors can successfully teach and learn together. If you or someone you know experiences unwelcomed behavior, we are here to help. Individuals who would like to report a Title IX incident are encouraged to immediately contact the Title IX Coordinator at titleix@mclennan.edu or by calling, Dr. Claudette Jackson, (Accommodations/Title IX) at (254) 299-8465.

Additionally, Title IX provides rights and protections for pregnant and newly parenting students which can include educational accommodations such as excused absences

and the opportunity to make up assignments and tests. Lactation spaces are also available on campus. Please email titleix@mclennan.edu for more information.

MCC employees are mandatory reporters and must report incidents immediately to the Title IX Coordinator. Faculty and Staff may email titleix@mclennan.edu to submit a report.

Individuals may also contact the MCC Police Department at (254) 299-8911 or the MCC Student Counseling Center at (254) 299-8210. The MCC Student Counseling Center is a confidential resource for students. Any student may report sexual harassment anonymously by visiting <https://www.lighthouse-services.com>

Visit McLennan's Title IX webpage at <https://www.mclennan.edu/titleix/> to learn more about Title IX protections, reporting, and resources.

Student Support/Resources:

MCC provides a variety of services to support student success in the classroom and in your academic pursuits to include counseling, tutors, technology help desk, advising, financial aid, etc. A listing of these and the many other services available to our students is available at <http://www.mclennan.edu/campus-resource-guide/>

Academic Support and Tutoring is here to help students with all their course-related needs. Specializing in one-on-one tutoring, developing study skills, and effectively writing essays. Academic Support and Tutoring can be found in the Library and main floor of the Learning Commons. This service is available to students in person or through Zoom. You can contact the Academic Support and Tutoring team via Zoom or email (ast@mclennan.edu) by going to our website (<https://www.mclennan.edu/academic-support-and-tutoring/>)

At our campus, we understand that students face numerous challenges beyond the classroom. That's why we offer Success Coaches who are dedicated to helping you succeed. Our coaches know that life can sometimes get in the way of your educational goals. Through personalized meetings, Success Coaches empower you to overcome obstacles, maximize your potential, and create a clear path to both academic and personal success. Our Success Coaches are ready to help you achieve your dreams! Schedule your appointment today by calling 254-299-8226 or emailing success@mclennan.edu.

College personnel also recognize that food, housing, and transportation are essential for student success. If you are having trouble securing these resources and other essential resources, we encourage you to contact the CREW - Campus Resources Education Web by calling 254-299-8561 or emailing crew@mclennan.edu.

Paulanne's Pantry (MCC's food pantry) provides free food by appointment to students, faculty and staff. To schedule an appointment, go to <https://calendly.com/paulannespantry-mcc/15min>.

Success Coaching Services, the CREW, and Paulanne's Pantry are located on the second floor of the Student Services building in Success Coaching Services, suite 249.

The Student Counseling Center offers confidential mental health counseling to currently enrolled students at no charge. Counselors are trained to help students with problems related to personal, social, and emotional concerns. Sessions focus on short-term goals in order to facilitate students college success and adjustment. This service is available to students in person or through Zoom.

Make an appointment to meet with a counselor by visiting the center in the Wellness & Fitness building, room 101, calling 254-299-8210, or emailing counseling@mclennan.edu.

MCC Foundation Emergency Grant Fund:

Unanticipated expenses, such as car repairs, medical bills, housing, or job loss can affect us all. Should an unexpected expense arise, the MCC Foundation has an emergency grant fund that may be able to assist you. Please go to <https://www.mclennan.edu/foundation/scholarships-and-resources/emergencygrant.html> to find out more about the emergency grant. The application can be found at <https://www.mclennan.edu/foundation/scholarships-and-resources/emergencygrant.html>

MCC Academic Integrity Statement:

Please view our [Academic integrity statement](#) for more information about academic integrity, dishonesty, and cheating. The unauthorized use of artificial intelligence (AI) for classwork can be a violation of the College's General Conduct Policy. Whether AI is

authorized in a course and the parameters in which AI can be used in a course will be outlined by each instructor.

Minimum System Requirements to Utilize MCC's D2L|Brightspace:

Go to <https://www.mclennan.edu/center-for-teaching-and-learning/Faculty-and-StaffCommons/requirements.html> for information on the minimum system requirements needed to reliably access your courses in MCC's D2L|Brightspace learning management system.

Minimum Technical Skills:

Students should have basic computer skills, knowledge of word processing software, and a basic understanding of how to use search engines and common web browsers.

Backup Plan for Technology:

In the event MCC's technology systems are down, you will be notified via your MCC student email address. Please note that all assignments and activities will be due on the date specified in the Instructor Plan, unless otherwise noted by the instructor.

Email Policy:

McLennan Community College would like to remind you of the policy (<http://www.mclennan.edu/employees/policy-manual/docs/E-XXXI-B.pdf>) regarding college email. All students, faculty, and staff are encouraged to use their McLennan email addresses when conducting college business.

A student's McLennan email address is the preferred email address that college employees should use for official college information or business. Students are expected to read and, if needed, respond in a timely manner to college emails. For more information about your student email account, go to www.mclennan.edu/studentemail.

Instructional Uses of Email:

Faculty members can determine classroom use of email or electronic communications. Faculty should expect and encourage students to check the college email on a regular basis. Faculty should inform students in the course syllabus if another communication method is to be used and of any special or unusual expectations for electronic communications.

If a faculty member prefers not to communicate by email with their students, it should be reflected in the course syllabus and information should be provided for the preferred form of communication.

Email on Mobile Devices:

The College recommends that you set up your mobile device to receive McLennan emails. If you need assistance with set-up, you may email Helpdesk@mclennan.edu for help.

You can find help on the McLennan website about connecting your McLennan email account to your mobile device:

- [Email Setup for iPhones and iPads](#)
- [Email Setup for Androids](#)

Forwarding Emails:

You may forward emails that come to your McLennan address to alternate email addresses; however, the College will not be held responsible for emails forwarded to an alternate address that may be lost or placed in junk or spam filters.

For more helpful information about technology at MCC, go to [MCC's Tech Support](#) or email helpdesk@mclennan.edu.

Disclaimer:

The resources and policies listed above are merely for informational purposes and are subject to change without notice or obligation. The College reserves the right to change policies and other requirements in compliance with State and Federal laws. The provisions of this document do not constitute a contract.