

NORTH CENTRAL TEXAS COLLEGE

COURSE SYLLABUS

<i>Course Title:</i>	Plane Trigonometry			<i>Course Modality:</i>	Online
<i>Course Prefix & Number:</i>	MATH1316	<i>Section Number:</i>	00310	<i>Class Day/Time:</i>	Online
<i>Semester Credit Hours:</i>	3	<i>Lecture Hours:</i>	48	<i>Semester/Year:</i>	Fall 2021
<i>Course Description (NCTC Catalog):</i> In-depth study and applications of trigonometry including definitions, identities, inverse functions, solutions of equations, graphing, and solving triangles. Additional topics such as vectors, polar coordinates and parametric equations may be included.					
<i>Course Prerequisite(s):</i> Meet TSI college-readiness standard for Trigonometry; or equivalent					
<i>Required or Recommended Course Materials:</i> Trigonometry, Lial/Hornsby/Schneider/Daniels, 12th edition, Pearson, 2021 or MyMathLab access code (e-text included in MML) Scientific calculator, TI-30X IIS is recommended Graphing calculators and phone calculators will not be allowed on exams.					

INSTRUCTOR INFORMATION

<i>Name of Instructor:</i>	Marla Owens
<i>Campus/Office Location:</i>	Corinth / Rm 206
<i>Office Hours:</i>	Monday/ Wednesday 9:00 am -10:00 am; 12:30 – 1:00 pm Monday 2:30 pm – 3:30 pm Wednesday 5:00 – 6:00 pm Tuesday/Thursday Virtually 2:00 – 5:00 pm Evening, Weekends by appointment only virtually
<i>Telephone Number:</i>	940-498-6226
<i>E-mail Address:</i>	mowens@nctc.edu

STUDENT HOURS (OFFICE HOURS)

Each week instructors have time set aside to meet with students outside of class. (Traditionally these times have been called “office hours”.) This is a time when a student may ask questions regarding the class, or discuss a particular problem/topic with an instructor one-on-one. Student hours may be held in-person or online. See below for instructions on where/when/how instructors will offer student hours in this class.

There are several options to contact me during my office hours. Email me first to let me know what day and time you would like to meet. We can meet face-to-face on Mondays and Wednesdays. If you are not comfortable with meeting face to face, we can meet virtually meet through BigBlueButton in Canvas during any of my posted office hours.

GRADING CRITERIA

<i># of Graded Course Elements</i>	<i>Graded Course Elements</i>	<i>Percentage or Point Values</i>
16	Attendance	10%
37	Homework	15%
28	Quiz	20%
3	Exams	30%
1	Final Exam	25%

Grade Scale: 90 – 100% = A; 80 – 89% = B; 70 – 79% = C; 60 – 69% = D; Below 60% = F

Tentative Weekly Schedule
MATH 1316.0310
Trigonometry

Fall 2021
 Online

Owens

Date	Topics	HW Assignments
Week 1 8/23 - 8/29	Syllabus, Course Setup, Section 1.1: Angles Section 1.2: Angle Relationships and Similar Triangles Section 1.3: Trigonometric Functions	Register for MyMathLab Section 1.1 Section 1.2 Section 1.3 Quiz #1
Week 2 8/30- 9 /5	Section 1.4: Using the Definitions of the Trigonometric Functions Section 2.1: Trigonometric Functions of Acute Angles Section 2.2: Trigonometric Functions of Non-Acute Angles	Section 1.4 Section 2.1 Section 2.2 Quiz #2 Quiz #3
<i>9/6</i>	<i>Labor Day Holiday</i>	<i>Campus closed</i>
Week 3 9/7 - 9/12	Section 2.3: Finding Trigonometric Values with Calculator Section 2.4: Solving Right Triangles Section 2.5: Further Applications of Right Triangles	Section 2.3 Section 2.4 Section 2.5 Quiz #4
Week 4 9/13 - 9/18	Review Quiz #5 Ch. 1 & 2 Test 1: Ch. 1 & 2	Test 1 on campus 9/18
Week 5 9/20 - 9/26	Section 3.1: Radian Measure Section 3.2: Applications of Radian Measure	Section 3.1 Section 3.2

	Section 3.3: The Unit Circle and Circular Functions	Section 3.3 Quiz #6 Quiz #7
Week 6 9/27 - 10/3	Section 3.4: Linear and Angular Speed Section 4.1: Graphs of the Sine and Cosine Functions Section 4.2: Translations of the Graphs of Sine/Cosine Functions	Section 3.4 Section 4.1 Section 4.2 Quiz #8
Week 7 10/4 - 10/10	Section 4.3: Graphs of the Tangent and Cotangent Functions Section 4.4: Graphs of the Secant and Cosecant Functions Section 4.5: Harmonic Motion	Section 4.3 Section 4.4 Section 4.5 Quiz #9
Week 8 10/11 - 10/15	Review Quiz #10 Ch. 3 & 4 Test 2: Ch. 3 & 4	Test 2 on campus 10/16
Week 9 10/18 - 10/24	Section 5.1: Fundamental Identities Section 5.2: Verifying Trigonometric Identities Section 5.3: Sum and Difference Identities for Cosine	Sections 5.1 -5.3 Quiz #11 Quiz #12 Quiz #13
Week 10 10/25 - 10/31	Section 5.4: Sum and Difference Identities for Sine and Tangent Section 5.5: Double-Angle Identities Section 5.6: Half-Angle Identities	Sections 5.4 -5.6 Quiz #14 Quiz #15 Quiz #16
Week 11 11/1 - 11/7	Section 6.1: Inverse Circular Functions Section 6.2: Trigonometric Equations I Section 6.3: Trigonometric Equations II <u>Last Day to Drop with a W is 11/1</u>	Sections 6.1 – 6.3 Quiz # 17 Quiz # 18
Week 12 11/8 - 11/14	Review Quiz # 19 Ch. 5 & 6 Test 3: Ch. 5 & 6	Test 3 on campus 11/13
Week 13 11/15 - 11/21	Section 7.1: Oblique Triangles and the Law of Sines Section 7.2: The Ambiguous Case of the Law of Sines Section 7.3: The Law of Cosines Section 7.4: Geometrically Defined Vectors and Applications	Sections 7.1 – 7.4 Quiz #20 Quiz #21 Quiz #22 Quiz # 23
Week 14 11/22 - 11/28	Section 7.5: Vectors, Operation, and the Dot Product Section 8.1: Complex Numbers Section 8.2: Trigonometric (Polar) Form of Complex Numbers	Section 7.5 Sections 8.1 -8.3 Quiz 24 Quiz 25

	Section 8.3: The Product and Quotient Theorems	Quiz 26 Quiz 27
Week 15 11/29 – 12/4	Section 8.4: De Moivre's Theorem; Powers and Roots of Complex Numbers Review Quiz # 28 Ch. 7 & 8 Review for the Final Exam	Section 8.4
Week 16	Final Exam: December 6 – 8 <i>In the testing center</i>	

Homework is assigned in MyMathLab (MML). Due dates will be listed in MML. Homework will be due on Sundays by midnight most weeks. Homework assignments are accessible through the MyMathLab Content link in Canvas. You will be allowed unlimited attempts for each homework assignment. You are welcome to work ahead in the course to avoid missing any due dates. There will be a couple of offline assignments which will be completed and submitted through Canvas.

Quizzes are assigned in MML. Always double check due dates. Students get 3 attempts on the quizzes, some may have time limits. The highest quiz score will be used in the MML gradebook. Quizzes will be due at midnight on Sunday of each week beginning after we complete section 1.3. These quizzes will be brief and should only take about 5 minutes to complete (as long as you are practicing with the material). They are designed to keep some basic concepts fresh in the students mind all semester. These concepts are vital to success in the class, hence the repetition you will see in the quizzes. You will not be able to work ahead on these quizzes. There will be 3 regular exams during the semester. All exams will be taken in person. Calculator use will be restricted on some tests or parts of tests. Any student who misses 2 tests may be dropped from the course.

Late work will be accepted with a 30% penalty.

Tests and Final Exam

Tests will be taken in a PROCTORED environment. There will be one attempt, and a time limit. The tests will be given in person or the testing center.

There are no make-up tests.

The Final Exam is comprehensive. The final exam can only be taken once. There are no make-up final exams. **After the final exam there is NO more work a student can do to improve their grade.**

The final examination will be comprehensive. Students who miss 2 or fewer weeks in class may use their final exam grade to replace their lowest exam grade. Please note the final exam will count as a grade but may count twice if it replaces your lowest exam grade. **Students who fail to log in to Canvas or register with MyMathLab by midnight August 31, 2021, may be dropped from the course.**

STUDENT LEARNING OUTCOMES

<i>At the successful completion of this course the student will be able to:</i>	
1	Compute the values of trigonometric functions for key angles in all quadrants of the unit circle measured in both degrees and radians.
2	Graph trigonometric functions and their transformations.
3	Prove trigonometric identities.
4	Solve trigonometric equations.
5	Solve right and oblique triangles.
6	Use the concepts of trigonometry to solve applications.

STUDENT EMAIL

All students at NCTC are assigned a student email address, also known as Lion Pride email. Lion Pride email can be accessed on the NCTC home page by clicking on MyNCTC, then the link "Lion Pride Email" to the left. After clicking the Lion Pride Email link, the Microsoft Office 365 window will open.

1. Enter your NCTC student e-mail address. (for example, Smithj123456@student.nctc.edu)
2. Enter your password (your NCTC Student ID Number, either 7 or 9 numbers).
3. From the list of Microsoft icons, choose MAIL.
4. You will be asked to set your language and local time zone (Central Time). Your account is now activated.

****It is the student's responsibility to activate and regularly monitor the assigned NCTC (Lion Pride) e-mail account. Important announcements and notifications from the Admissions office, Financial Aid, or other college staff will be sent via the Lion Pride student email system.**

For communicating with classmates and instructors, students also have an option to communicate through Canvas. Canvas messaging is NOT the same as Lion Pride e-mail. Failure to read and/or receive NCTC e-mails (either in Lion Pride or in Canvas) is no excuse for not complying with any school policy. Be sure to regularly check BOTH the Lion Pride email as well as the Canvas inbox for important messages and information.

ATTENDANCE POLICY

Regular and punctual attendance is expected of all students in all classes for which they have registered. All absences are considered to be unauthorized unless the student is absent due to illness or emergencies. It is the student's responsibility to provide documentation as to the emergency for approval by the faculty member. Approved college-sponsored activities are also excused absences. The instructor is responsible for judging the validity of any reason given for an absence. Valid reasons for absence, however, do not relieve the student of the responsibility for making up required work. Students will not be allowed to make up an examination missed due to absence unless the absence is documented and excused by the instructor. Student will be dropped from a class by the Registrar upon recommendation of the instructor who feels the student has been justifiably absent or tardy a sufficient

number of times to preclude meeting the course's objectives. Persistent, unjustified absences from classes or laboratories will be considered sufficient cause for College officials to drop a student from the rolls of the College. From Board Policy FC (LOCAL)

Attendance in this Online course is defined as the following:

1. Our weekly assignments will run from Monday through Sunday 11:59 pm.
2. Attendance will be based on completion of weekly assignments. You must log in and complete required assignments every week (at any time during the week) or you will be considered absent for the week. Optional activities such as study plan or videos do not satisfy the attendance requirement. You must attempt at least two graded assignment (e.g., homework/quizzes) each week.
3. **To be counted present**, you must log in and complete at least TWO weekly assignment with a score of 65% or higher before the deadline. Any quizzes time stamped after the due date will not count for attendance.

** Quizzes are due on Monday by 11:59 pm except review quizzes for the Midterm and the Final Exam which are due by 11:59 pm the day before the Exam due dates (due dates are posted with each assignment). **

To be clear: from the first day of the semester, even if you are ahead of the due dates, you must log in every week and work

TESTING POLICY

Testing may be administered in a variety of ways and the mode of testing may change during the semester as deemed appropriate by the instructor. When possible, in-person proctored testing is preferred. For in-person classes testing will occur during the designated class times. **For online classes in-person proctored testing may be required.** On site testing may be done in an NCTC testing center, at test locations provided by the math division, or at another authorized testing site. If online testing is used students may be required to use a webcam while testing. For online testing students will be required to scan and upload supporting documents. Students may be asked to demonstrate knowledge/skills in a one-on-one conference if deemed necessary by the instructor.

TENTATIVE TEST SCHEDULE

This schedule is tentative and may change as the semester progresses. It is provided so that you have a general idea of the order and speed with which we will be covering the material.

Assessment name	Testing Center Dates	On Campus Date
Test 1	September (14-17)	September 18, 2021
Test 2	October (12 – 15)	October 16, 2021
Test 3	November (9 -12)	November 13, 2021
Final Exam	December (6-8)	

LAST DAY TO WITHDRAW

Last day to withdraw from a 16-week course with a “W” is Monday, November 1, 2021.

MATH LAB

Students who need help with any math class can visit the NCTC Mathematics Lab to receive assistance. Sign up for an appointment or see the most current tutoring hours for all campuses at <http://www.nctc.edu/student-services/student-success/tutoring/mathematics-lab.html>.

DISABILITY SERVICES (Office for Students with Disabilities)

The Office for Students with Disabilities (OSD) provides accommodations for students who have a documented disability. On the Corinth Campus, go to room 160 or call 940-498-6207. On the Gainesville Campus, go to room 110 or call 940-668-4209. Students on the Bowie, Graham, Flower Mound, and online campuses should call 940-498-6207.

North Central Texas College is committed to both the spirit and letter of federal equal opportunity legislation, including the Americans with Disabilities Act (ADA) of 1990, ADA Amendments Act of 2009, and Section 504 of the Rehabilitation Act of 1973 (P.L. 93-112). <https://www.nctc.edu/catalog/student-services/office-students-with-disabilities.html>

CORE CURRICULUM FOUNDATIONAL COMPONENT AREA (For classes in the Core)

- Communication
- X** **Mathematics**
- Life and Physical Science
- Language, Philosophy & Culture
- Creative Arts
- American History
- Government/Political Science
- Social and Behavioral Sciences
- Component Area Option

REQUIRED CORE OBJECTIVES (For classes in the Core)

- X** **Critical Thinking**
- X** **Communication**
- X** **Empirical and Quantitative**
- Teamwork
- Personal Responsibility
- Social Responsibility

COURSE TYPE

- Academic General Education Course (from ACGM but not in NCTC Core)
- X Academic NCTC Core Curriculum Course**
- WECM Course

STUDENT HANDBOOK

Students are expected to follow all rules and regulations found in the student handbook.

<https://www.nctc.edu/documents/academics/student-handbook.pdf>.

ACADEMIC DISHONESTY

Scholastic dishonesty shall include, but is not limited to cheating, plagiarism, academic falsification, intellectual property dishonesty, academic dishonesty facilitation and collusion. The use of online math solvers with submitted work is considered academic dishonesty. Faculty members may document and bring charges against a student who is engaged in or is suspected to be engaged in academic dishonesty. See Student Handbook, "Student Rights & Responsibilities: Student Conduct ([FLB(LOCAL)])".

Consequences for academic dishonesty may include:

- 1) Zero on the assignment
- 2) Failing grade for the course

Name of Chair:	Ben Owens
Office Location:	Corinth 170
Telephone Number:	940-498-6209
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Name of Instructional Dean:	Mary Martinson
Office Location:	Gainesville 1404
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Syllabi statement regarding potential Conversion of Onsite Classes to Online/Remote Format: North Central Texas College students should be aware that in the event of a college closure due to COVID-19 or other health related crisis, onsite classes will be converted to an online/remote format. Students should plan ahead to ensure they have access to the computer equipment (either PC, MAC, or tablet), webcam, and internet connectivity to continue their classes in an online/remote format. Please read all your official North Central Texas College student emails as the transition from onsite to online/remote might require a reorganization in your personal situation. Students will be granted a 72-hour transition and grace period. Online classes will continue as scheduled without disruption. Contact your Instructor as the situation arises. These policies and procedures were updated on July 27, 2021 and are subject to change as conditions change.

Syllabi Statement Regarding Face Coverings: Per the North Central Texas College guidance on face coverings on campus, in the instructional setting, faculty and students are not required to wear face coverings, such as masks or face shields. In May, Texas Governor Gregg Abbott released an Executive Order prohibiting Government entities from mandating the use of masks. As a political subdivision of the

State of Texas, NCTC will follow the Governor's Executive Order for Government entities and effective immediately NCTC is no longer mandating the use of masks while on campus. This order does not mean that you cannot choose to wear a mask, rather it is no longer allowed to be mandated. These policies and procedures were updated on May 19, 2021 and are subject to change.

Return to Standard Attendance Protocol for Face-to-Face Meetings: In spring 2020, we faced an unprecedented situation in which all of us had to be flexible and make prudent decisions in the best interest of our families, our campus, and our community. In light of this, North Central Texas College is temporarily establishing the requirement that faculty keep records of student attendance for face-to-face course meetings as well as a documented seating chart. In addition, students who are sick or need to quarantine should not attend classes. Students will not be required to provide formal documentation from a health care provider and will not be penalized for COVID-19 related absences when proper notification to campus health officials is made in accordance with the guidelines stated below.

Faculty will:

- Notify students about important course information and delivery changes through Canvas and campus email.

Students should:

- Provide notification to campus officials if they have tested positive for COVID-19 or have to quarantine so we can confirm reported absence with instructors, monitor, and assist the campus community.
- Notify instructors in advance of the absence.
- Connect with that class through Webex if the class session is being transmitted in a hybrid fashion.
- Keep up with and/or make up missed classwork or assignments.
- Submit assignments digitally through Canvas or other means as announced by your instructor.
- Work with their instructors to reschedule exams, labs, and other critical academic activities described in the course syllabus.
- Check Canvas and campus email daily to receive important announcements pertaining to the course.

During the fall 2021 semester, faculty with face-to-face meetings will establish assigned seating/work stations to facilitate roll-taking, and, if necessary, contact tracing. Additionally, we ask all members of the College community to be attentive to their health, and safeguard others, by following the CDC's guideline to "stay home when you are sick." You should stay home if you have symptoms. More information on what to do if you are sick is available at the CDC's website.

Additional NCTC information is available at <http://www.nctc.edu/coronavirus/index.html>

CAMPUS POLICIES

Tobacco-Free Campus: NCTC restricts the use of all tobacco products, including cigarettes, e-cigarettes, cigars, pipes, and smokeless tobacco, on campus property.

Campus Carry: Effective August 1, 2017, a license holder may carry a concealed handgun on or about the license holder's person while the license holder is on the campus of an institution of higher

education or private or independent institution of higher education in this state. For more information, see the website at <https://www.nctc.edu/campus-safety/campus-carry.html>.

Parking Permits: The North Central Texas Community College District has managed traffic and parking regulations in order to ensure the safety of the campus community related to the operation and parking of vehicles on campus. These regulations apply to all operators of motor vehicles on campus. For parking permits and more information, see the website at <https://www.nctc.edu/campus-safety/transportation-parking.html>.