Nashville State Community College
School of STEM Mathematics

Master Course Syllabus

MATH 1720 – Precalculus Trigonometry

The purpose of the syllabus is to tell you how the course is organized, what the expectations are, and how you will be graded. In addition, there is important information about how the college will operate during severe weather and how the college will communicate with you. The syllabus is not a contract. Instead, it is meant to help you succeed in this course. If any of the content changes during the semester, you will be notified.

Course information:

Course Title: MATH 1720 – Precalculus Trigonometry
Credits: 3 Credit Hours
Class Hours: 3 Class Hours

Course Description:

A traditional course in precalculus trigonometry. Topics include the trigonometric functions and their graphs, right and oblique triangles, degree/radian measure, trigonometric equations, identities, inverse trigonometric functions, vectors, the polar coordinate system, parametric equations, conic sections, and applications. PREREQUISITE(S): Level 3 placement or higher in Math or MATH 1710.

Instructor Information:

Name:
Email:
Office Phone:
Office Location:
Office Hours:
Instructor Zoom Room link:

Class Session Zoom Link Information (if virtual):

Required Textbook(s) & Other Materials: (Students must check with the Instructor before purchasing any materials, other than the listed graphing calculator)

Textbook(s): A digital copy of the textbook is automatically provided to you through the Digital Course Materials (DCM) program: Precalculus: Graphs and Models, A Right Triangle Approach, 6th edition, by Bittenger/Beecher; Publisher: Pearson.
ISBN: (If you are using the automatically provided Digital Course Materials (DCM), you do not need to worry about these): 9780134179056 (text only) or 9780135834411 (18-week MyMathLab access) or 9780135834459 (24-month MyMathLab access)
Reference Materials: The Student Solutions Manual is optional and is NOT automatically provided to you. The ISBN for the Student Solutions Manual is 9780134265230.

Supplies: A graphing calculator is ***required*** **and will be used** ***extensively*** **in this course** (TI-84 or TI-83 or TI-83+ are recommended). It is NOT automatically provided to you. It is NOT optional if you want to be successful in the course. Calculators can be borrowed from campus on a first-come-first-serve bases, and they also be purchased new or used or rented from the NSCC bookstore. Calculators like the TI-89 will not be allowed (those with a Computer Algebra System - CAS). The TI-nspire calculator will only be allowed with the TI-84 Plus keypad (during tests).

Once you have registered for your courses, you should make sure you have the correct textbook and materials for each course. Before courses begin, you can do this by looking up your courses on the bookstore's website (https://www.bkstr.com/nsccstore/shop/textbooks-and-coursematerials) using your A# or by entering your course information. If you are registered with the Access Center and need an alternate format for the textbook and other course materials, please contact the Access Center at 615-353-3721, 615-353-3741, or accesscenter@nscc.edu

Digital Course Materials: These ensure you pay less for your course materials and have easy access through D2L or MyMathLab throughout the semester. When you registered for this course, the charge for these materials appeared on your account. If you decide you do not want to purchase the course materials embedded in NS Online, you can opt out of the program **until the end of the second week of classes**. If you opt out, you will be responsible for purchasing the required course materials on your own. For more information, please visit www.nscc.edu/dcm.

Accessing MyMathLab: In NS Online you need to click the Content tab in your course. This will display the Table of Contents. Under the Table of Contents choose the MyLab Math – Student Links to access your assignments.

Honors Option: Honors credit is available in some classes. If you are interested in participating in the Honors Program, please see your instructor within the first four weeks of class.

Course Outcomes: At the end of the semester, this is what you should know and/or be able to do:

- Solve problems using mathematics and determine if solutions are reasonable. Solve trigonometric equations, solve triangles, and evaluate inverse trigonometric functions and determine if the solution/result is reasonable.
- Apply mathematical concepts to solve real-life problems using formulas (deduction) and interpret the meaning of the solution.
- Create, analyze, and interpret results for applications involving vectors, linear and angular speed, navigation, the periodic nature of the trigonometric functions, and the conic sections.
- Construct meaningful connections (transfer of knowledge) between mathematics and other disciplines.
- Apply technology for mathematical reasoning and problem solving.
- Apply mathematical reasoning with technology to solve problems involving trigonometric functions and inverse trigonometric functions.
- Analyze data/graphs by using mathematical modeling and/or statistical reasoning. Use modeling to determine information involving graphs of the conic sections, and approximating solutions to trigonometric equations.

General Education Core Mathematical Outcomes

- Apply mathematical principles or basic statistical reasoning to solve conceptual or applied problems and determine if solutions are reasonable.
- Communicate mathematical concepts using appropriate terminology and symbolic language.
- Analyze the behavior of, and solve, real world problems relating mathematics to other disciplines.
- Use appropriate technology to analyze data and graphs, as well as model real world behavior.

Associated TBR Core Competencies

- Scientific Inquiry and Mathematical Reasoning
- Critical Thinking



Topics to Be Covered:

Trigonometric functions of acute angles; Solve right triangles, applications; Trigonometric functions of any angle; Radians, arc length, angular speed; Circular functions, graphs and properties; Graphs of transformed sine functions and cosine functions, graphs of all other trigonometric functions; Identities: Pythagorean, Sum/Difference, Co-function, Double-angle, Half-angle; Inverses of trigonometric functions and graphs; Trigonometric equations; Law of Sines and Law of Cosines; Polar coordinates and graphs; Vector operations, applications; Conic sections (parabola, circle, ellipse, hyperbola)

Course Assessments: We will use the following assessments to demonstrate your understanding, knowledge, and skills

Homework

Quizzes

Tests

Final Exam (comprehensive)

Grading Policy:

The grade for the course will be based on unit tests, homework and quizzes, and a final exam determined by the following distribution:

Final Exam: 20 percent to 25

Other tests: 50 percent to 60 percent

Other (homework, quizzes, projects, etc.): 15 percent to 30 percent

Grading Scale:

Letter Grade	Percentage Range
A	90 to 100
B	80 to 89
C	70 to 79
Letter Grade	Percentage Range
D	60 to 69
F	0 to 59

FA

If you stop attending class or if you are in an online class and stop submitting assignments, but do not turn in a withdrawal form by the deadline, you are still enrolled in class. You will be given a grade of FA, which means you have failed due to not attending class and not completing your assignments. Please refer to the current academic calendar available on the Nashville State web site, looking for the date that indicates it is the "Last Day to Earn F for Attendance (FA)." If you stop attending your course after this date, you will receive an F. (For the full Fall term, this date is **11/1/2024**.)

FN

An FN is awarded if you have never attended your course or done any of the work in an online course.

NOTE: Last day to withdraw from the course with a 'W' is 11/1/2024 .

Late Work Policy & Make-up Procedures for Missed Assignments and Work:

There will be no make-up assignments or make-up exams for any reason. No extensions are given or late work accepted past the posted due dates for all assignments. Due dates are posted in this website as well as in Mymathlab. Manage your time carefully, use a calendar to record due dates, attend class and work in MyMathLab regularly so that are aware of due dates. There are no exceptions to this policy. You need to prepare for technological difficulties by not leaving your work until the last minute.

Attendance Policy

General Policy

- *Absences in a course may affect your final grade.*
- *Tardiness may also affect your final grade.*
- *You are responsible for all work/tests that occur during any missed course session(s) regardless of reason(s) for absence.*
- *If you are not well enough to attend a course session (class), you must notify the instructor as soon as possible before the scheduled course time.*
    - *If you are unable to notify an instructor before the scheduled course time, you must contact the instructor as soon as reasonably possible.*
- *If you have an unavoidable conflict with a scheduled course session, you must notify the instructor before the course session.*
    - *If you are unable to notify an instructor before the scheduled course time, you must contact the instructor as soon as reasonably possible.*

Instructor's Policy

The attendance policy for this course is:

For this class, attendance is signaled in-person attendance, participating as prompted and completing assignments. Campus closures do not affect attendance and assignment completion for online assignments in the course.

You must also be working in Mymathlab by the end of the first week of class.

- The assignments are accessed by the Module instructions as well as in the MyMathLab module under Content above. Complete homework assignments for each course section by the due date listed.
- Students are expected to complete the assigned problems, on time, no exceptions. Students are also expected to complete Tests as directed by the instructor. Tests must be taken by the dates listed on the Assignments Schedule link under Content.
- Netiquette rules when communicating online must be observed.
- Take tests per the schedule. The tests must be taken **ON** or **BEFORE** the due date listed on the Course Outline. Submitting homework, discussions or testing on the last possible date indicates that a student is behind schedule and is in jeopardy of not successfully completing the course. Extensions on the submission deadline dates will not be granted for any reason.

Homework & Quiz assignments: Interacting with and exposure to the material is the best way to learn mathematics. The homework from the text will not be submitted for grading. There are required assignments that must be completed using MyMathLab. Understand that you should not put off an assignment until the last minute, as you may experience technical difficulties or run out of time when attempting to do the work. Assignments are given firm deadlines. All assignments must be completed by the listed due date & time. It is strongly recommended that you rework any problem you guess on or do not get correct the first attempt to ensure you have mastered the material. The exercises in MyMathLab have tutorial help by choosing "View an Example." In addition, MyMathLab has videos and animation to work with certain problems.

You should score a 70% or above on each homework for full mastery of course topics. To raise your score to 70%, simply rework missed problems (you do not need to repeat the whole assignment) until your overall score reaches 70%. It is strongly recommended that you rework any problem you guess on or do not get correct the first attempt to ensure you have mastered the material. **Late assignments will not be accepted for any reason.**

Tests: Failure to complete a test by the deadline will result in a zero for the test. There will be no extension for any reason. **If you miss a test, the test will be counted as a zero**. However, the lowest test score (including a zero for a missed test) will be replaced by the final exam grade provided that the final exam grade is higher than the test grade that it replaces. This will only apply to one test. If you miss more than one test, the second zero will stand. **There will be no make-up exams for any reason.** Please see the Academic Misconduct section below regarding Zero's earned for cheating.

Final Exam: The required final exam is comprehensive and will be given

The same rules for tests apply to the final exam. The final exam must be taken **ON or BEFORE** the due date. There will be no extension for any reason.

Technical Difficulties: You may experience technical difficulties related to computer connections or equipment during the term. This cannot be used as an excuse for failure to complete assignments or to participate online. It is your responsibility to locate the computer hardware, software and Internet connections necessary to stay connected and current with your course work online. You should seek alternate Internet connections available through the college's computer labs, the college's library, the public library, and any friends, relatives, or neighbors if your personal computer equipment is not working.

For financial aid purposes, **attendance** is measured by participation in the course. Instructors can determine your level of participation in several ways. Some of those ways are:

- Continued attendance
- Participation in on-ground or virtual class sessions
- Participating in D2L as prompted
- Responding to an instructor's email
- Posting to a discussion board
- Completing and submitting assignments

Technology Statement

- All classes at the College are web enhanced. "Web enhanced" means that components of the course, such as assignments and online discussions, may be located online in the class D2L/NS Online course shell and used in the course, even if the course meets in a classroom on ground.
- You must have access to a computer and an Internet connection to complete assignments, engage in online discussions, and access various course materials through D2L/NS Online course shells.
- You may also be required to use free video conferencing platforms (examples: Zoom, Teams, etc.) for course sessions and meetings.
- You will be responsible for appropriate dress while on video. This means that you are expected to dress as if you were in a classroom.
- You will be responsible for a distraction free environment while on video. This means that the professor and others in the course should not be able to hear noise in your home, such as cell phones, TVs, or barking dogs. The best way to do this is to keep yourself on "mute" until you need to speak.
- You will be responsible for making sure your background is neutral. Keep in mind that students and professors come from all around the world, and you are all a part of our community. Therefore, please avoid having images in your background that may be offensive to your classmates.
- Certain publisher materials, such as textbook figures, may not work on cellphones and may require a laptop or a tablet.
- If you have questions or concerns regarding access to a computer or Internet resources, please contact your instructor. Additional information is available on this website: https://www.nscc.edu/current-students/student-online-resources/access-to-internetand-technology.

Computer Labs

Computers are available for all Nashville State students to use at each campus during open hours. Open computer lab availability may vary from campus to campus.

You should check the NSCC website for current hours of operation.

D2L/NS Online and myNSCC

It is your responsibility to check your email in **both** D2L/NS Online course shells and your @my.nscc.edu (student email) on a regular basis. These are the official communication channels between the college and you. You are responsible for the information communicated through these email channels. D2L/NS Online emails contain specific course information and @my.nscc.edu emails contain important information from college offices, such as Financial Aid.

ADA Compliance Statement

If you need accommodations due to a disability, please do not hesitate to reach out to our Access Center. Disabilities for which you can receive accommodations include documented physical, emotional, and/or learning conditions. Nashville State is committed to supporting your success, and we encourage you to get assistance if needed. If you require accommodations for any courses in which you are enrolled, contact the Access Center at 615.353.3741 or 615.353.3721, or e-mail accesscenter@nscc.edu.

Classroom Misconduct

Disruptive conduct is not allowed in the classroom. Disruptive conduct is any behavior that prevents students from learning and interferes with the ability of the instructor to teach. This may change from course to course; therefore, your individual instructors will give you guidance on what qualifies as "disruptive conduct" in their courses. Please review the Nashville State Student Code of Conduct policy. Please be aware that children are not allowed in class or to be left unattended on campus.

Academic Misconduct

You have started this academic journey to prepare for a future career. Because of this, it is important that you learn the materials being presented in your courses. For this reason, cheating, in any form, robs you of your opportunity to learn and master the material that will enable you to succeed in that future career. Nashville State has a clear Academic Misconduct Policy that you are expected to follow. In addition, your instructors will clarify what Academic Misconduct looks like and the consequences for violations in each course that you take. The instructor has the authority to assign an "F" or a "zero" for such violations or for the semester grade.

Academic dishonesty may be defined as, but is not limited to, intentionally trying to deceive by claiming credit for the work of another person, using information from a web page or source without citing the reference, fraudulently using someone else's work on an exam, paper, or assignment, recycling your own work from another course, purchasing papers or material from another source and presenting them as your own, attempting to obtain exams/materials/assignments in advance of the date of administration by the instructor, impersonating someone else in a testing situation, providing confidential test information to someone else, submitting the same assignment in two different classes without requesting both instructor's permission, allowing someone else to copy or use your work, using someone else's work to complete your own, altering documents, transcripts or grades, and forging a faculty/staff member's signature.

In addition to other possible disciplinary sanctions that may be imposed through regular college procedures as a result of academic dishonesty the instructor has the authority to assign and F or a Zero for the exercise, paper, or examination or to assign an F for the course. Note: If a student earns a Zero on a Test due to academic misconduct this 0 grade cannot be replaced with the Final Exam score.

Academic Early Alert System

If you are not doing well in your course, your instructor may send you an Early Alert through your @my.nscc.edu email. This email will go to your academic advisor and Student Success advisor, as well. If you get an Early Alert, contact your instructor immediately. Instructors send these when they want to help you figure out how to get extra support to pass the course. An Early Alert does not mean that you have already failed the course. Rather, it means you are in danger of failing the course if you do not change your learning strategy. Please use an Early Alert to your advantage and as an opportunity to improve your grade.

RAVE Emergency Alert System

You can log in to this free alert system to receive text messages about emergencies related to NSCC campuses: https://www.getrave.com/login/nscc. The instructions for this are listed below.

- Your RAVE Username is your NSCC email address.
- If you've never received an email from RAVE with your password, or if you need to reset your password, select "Forgot your password?" and a new password will be emailed to you.
- Should the RAVE system indicate "user not found," select Register and create your own RAVE account.

Student Wellness

Your well-being is important to us. With this in mind, the college has several resources available to provide support when needed:

- Free tutoring: https://www.nscc.edu/current-students/on-campus-resources/learning-centerand-tutoring
- NSCC email, scheduling, online courses, textbooks, tech check out and support, computer labs on campuses, academic advising, financial advising, COVID-19 information, and procedures on campuses: https://www.nscc.edu/current-students/student-online-resources
- Services that help with bus passes, food, childcare, textbooks, housing, financial counseling, personal counseling, suicide prevention, health insurance: https://www.nscc.edu/currentstudents/on-campus-resources/student-support-services

Equity Statement

We are taking steps to become more aware of the many different needs of students. Faculty, staff, and administrators are committed to helping students find ways to meet their needs so that ALL students can reach their goals. Please ask for things you need.

Inclement Weather & Campus Closings

You get notices about campus closings in these places: text messages from RAVE and www.nscc.edu. In the event of a campus closure due to inclement weather or other emergencies, **this course may transition to an online format.** Students should check D2L regularly for updates and instructions

Even when campuses are closed, you are still responsible for completing all assigned work. Check D2L/NS Online for a message from your instructor so you do not miss important assignments and due dates, which may change due to the campus closure.

Class Cancellation Policy

Our instructors post messages about cancelling classes in the D2L/NSOnline course shells and/or on the classroom door on campus. These messages can be found in the News and Content section or the Email tab in the online shell. Please check these to be sure that you take advantage of opportunities for learning and points toward your grade.