MATH 373 — LOS RIOS/CRC
TRIGONOMETRY FOR CALCULUS — FALL 2025
4 + 2 UNIT(S) — SECTION # 14400, 14528

THIS SYLLABUS WAS UPDATED ON AUGUST 21, 2025

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Canvas messaging and email are the most reliable ways to get in touch with the instructor. When emailing, please always specify your real name (the same one as in the roster) and which class you are inquiring about. Emails omitting this information may fail to be processed.

Office: LRC 150, (916) 691-7086, TBD. Please let the instructor know if these hours do not work for you, and we can try to set up an appointment (allow 2 business days for reply).

Class Meetings: Learning Resource Center (LRC) 201, TuTh 12:00 pm – 3:05 pm.

Required Text: *Math 373: Trigonometry for Calculus*, current edition, by Roy Simpson. The students are responsible for accessing the text and reading every section covered in class and/or assigned for homework.

Required Materials/Tech: A **non-graphing, non-networked** calculator with support for trig functions and inverse trig functions, a 4-function calculator is optional, some graph paper, a straightedge, bright-colored pens and/or pencils.

Catalog Description: This course provides a rigorous treatment of trigonometry and its applications, focusing on preparing students for the calculus sequence for Science, Technology, Engineering, and Mathematics (STEM) majors. Topics include right triangle trigonometry, unit circle trigonometry, graphs of trigonometric functions, proofs of trigonometric identities, solving trigonometric equations, applications of trigonometric functions (laws of sines and cosines), inverse trigonometric functions, the polar coordinate system, and an introduction to vectors. Emphasis is given to analytical reasoning and problem-solving. Students may take this course concurrently with MATH 372 (College-Algebra for Calculus). Completing both MATH 372 AND MATH 373 with grades of "C" or better meets the prerequisite for MATH 400 (Calculus I).

Prerequisites: Intermediate Algebra or the high school equivalent (such as Math 3 or Integrated Math 3) or higher with a C or better, or eligibility for transfer-level mathematics.

Methods of Instruction: Class meetings will feature a mix of lecture, discussion, quizzes/labs, and group assignments. The instructor may assign students into teams for group assignments, and reassign teams at any time during the semester. Several in-class tests will be given.

Attendance: To succeed in this course, it is crucial that you attend every class session, alert and prepared to learn. Roll will be taken for each class session, usually at the beginning of the class. If you arrive after the class has started, please enter the room quietly and get on the roster at the end of the class. If you miss more than a half of a class session for any reason, you will be considered absent for that whole session. **If you miss total of 6% of class time or more, you may be dropped from the class** (missing one whole week will put you over 6% in most cases). These absences need not be consecutive, and **any** class time you miss may be added to the total. If you ever have to miss class, just keep the instructor in the loop. Communication goes a long way, and will help the instructor to provide you with appropriate support.

By default, only the students enrolled in this class can attend the class sessions. If you are planning on bringing a visitor, you should try to notify the instructor in advance. Exceptions will be made at the instructor's discretion on a case-by-case basis.

`https://crc.losrios.edu/admissions/enroll-in-classes/grading-policies-and-academic-regulations`

Written Assignments: All written assignments, including but not limited to the homework, tests, labs, and the final, should be done in **dark pencil or pen**; black, **dark gray**, **dark blue**, and **deep purple** are preferred. Fancy colors such as **green**, **red**, or **pink** can only be used to augment graphs and illustrations.

Once assignments are graded, the instructor will bring them to class and distribute them back to students. If you are not present on that day, then you can pick up your graded assignments during the office hours. All written assignments except for the final exam will be securely destroyed after your class grades are submitted to the district.

Homework: Homework serves as practice and will prepare you to do your best on labs and tests. Homework is crucial for learning the material as well as for succeeding in this class. Doing all homework is probably the most effective way to raise your test grades. You are welcome to work in groups while solving the homework, but you must submit your own work.

Homework in this class is not intended as the primary means of feedback. Students are expected to check and judge their own work by using the answer key (whenever available), verifying answers with technology, and/or discussing the homework with the instructor during office hours. At most, the instructor will only check a very small portion of the homework for accuracy.

Late homework will be accepted with a fixed 5% penalty per day past due. **If submitted in-person, late homework** must be clearly marked as late, and show at the top the date it was originally due, as well as the date it was actually submitted. Without that information, late homework will not be processed.

Labs/Worksheets: In-class assignments will be given out during some class sessions, typically without any advance warning. **There will be no make-ups for labs/worksheets,** but at least 4 lowest scores for these assignments will be dropped before your grade is computed.

Tests: There will be several tests. If you are not present for the test, zero will be entered as your grade for that test. At the instructor's discretion, the following options may be available for making up a test you've missed:

- Using your comprehensive final grade to replace one of your missing test grades.
- Taking a make-up test during the finals week.

Final: The 2 hour comprehensive final exam will be given on the date determined by the official final exam schedule:

`https://crc.losrios.edu/admissions/academic-calendar-and-deadlines/final-exam-schedule`

The final date and time are determined by the College District before the semester starts. You should plan to be present at the final. If your schedule precludes you from being present at the final, you should inform the instructor in writing during the first two weeks of instruction. If you are not present at the final, "F" will be entered as your grade for the class.

Grading:

Grades versus %	
A	$90-100\%$
B	$80-89\%$
C	$70-79\%$
D	$60-69\%$
F	$0-59\%$

Grade Breakdown	
Homework	10%
Labs/Worksheets	10%
Tests	55%
Final	25%

Extra Credit: One way to get extra credit in this class is to be first to point out a typo or an error in any of the printed materials created by your instructor. The other one is in-class participation.

Getting more than 1% of the total class grade from extra credit is rare. The instructor reserves the right to set or change the maximum allowed amount of extra credit per student, and can do so at any time during the semester.

Getting Help: If you have a question or a concern not addressed in this syllabus, please contact your instructor via email (allow 2 business days for reply). Moreover, the campus provides some resources to help you study:

`https://crc.losrios.edu/student-resources`

Tutoring: The CRC Tutoring Center provides academic support services to CRC students. The Center facilitates drop-in tutoring, study skills coaching, study groups, and more.

`https://crc.losrios.edu/student-resources/tutoring`

Additional tutors are available at the Math Center, which helps students to develop confidence and proficiency in their math skills.

`https://crc.losrios.edu/student-resources/tutoring/math-center-at-crc`

Even more support is available at MESA, a program designed to aid underrepresented students in obtaining a calculus-based four-year degree in a STEM field.

`https://crc.losrios.edu/student-resources/mesa`

Computers: The use of computers and tablets during regular class meetings is OK as long as they are used for class work and are completely silent. While taking tests and the final, only the approved non-networked calculators and/or computers running approved software will be allowed. If in doubt, you should consult with the instructor and get your devices pre-approved prior to the test date. **Using tablets or computers for anything but the current assignment in this class may result in you being removed from the classroom until the end of the session, which will count as an unexcused absence.**

Forbidden Tech: Spyphone/smartphone use is prohibited while the class is in session. In particular, they can never be used as calculators. Computerized watches can be used for showing current time only, and may have to be stowed away during tests. **Using the tech listed above in violation of this syllabus may result in you being removed from the classroom until the end of the session, which will count as an unexcused absence.**

Accommodations: Disability Support Programs & Services (DSP&S) provides equal educational opportunity for students with physical, psychological, or learning disabilities. Counseling, support services, and academic accommodations are provided to students who are eligible for the program.

The Cosumnes River College Learning Disabilities Program can provide support services and academic accommodations to students who have documentation of a specific learning disability from another school or professional. In addition, Diagnostic Assessment may be available for appropriately referred students who come to the DSP&S program for an orientation appointment.

If you have a learning disability, a physical disability, or other special needs, please let the instructor know as soon as possible if you need special accommodations.

Students have the right to request reasonable modifications to college requirements, services, facilities or programs if their documented disability imposes a functional educational limitation or impedes access to such requirements, services, facilities, or programs. A student with a disability who will be requesting modification, accommodation, or access to an auxiliary aid is required and responsible for identifying himself/herself to the instructor and, if desired, to the Disabled Students Programs and Services (DSP&S office). In either event, **the student is responsible for providing appropriate documentation of his/her disability before we can accommodate**. Students who consult or request assistance from the DSP&S office regarding specific modifications, accommodations or use of auxiliary aid will be required to meet timelines and procedural requirements established by the DSP&S office.

`https://crc.losrios.edu/student-resources/support-services/disability-support-programs-and-services`

Academic Honesty: Any instance of plagiarism and/or cheating will result in the score of zero for that homework, quiz, or test, and will be reported to the Vice President's office.

`https://crc.losrios.edu/about-us/our-values/student-rights-and-responsibilities/plagiarism-and-cheating`

Meta: The instructor reserves the right to make changes to this syllabus throughout the semester. All relevant changes will be announced in class, and an updated version of the syllabus will be published online. Students are responsible for keeping up with these changes.

Student Learning Outcomes: This section is here for reference only. Upon successful completion of this course, the student will be able to

- Investigate angular measure and trigonometric functions.
  - Identify special triangles and their related angle and side measures.
  - Evaluate the trigonometric function of angles in degree and radian measure.
  - Manipulate and simplify trigonometric expressions.
  - Calculate powers and roots of complex numbers using DeMoivre's Theorem.
- Graph trigonometric functions and use identities to solve trigonometric equations.
  - Solve trigonometric equations, triangles, and applications.
  - Graph the basic trigonometric functions and apply changes in period, phase and amplitude to generate new graphs.
  - Evaluate and graph inverse trigonometric functions.
- Use trigonometric identities.
  - Prove trigonometric identities.
  - Use trigonometric identities to graph trigonometric functions.
  - Implement the use of trigonometric identities to solve trigonometric equations.
- Graph polar functions and parametric curves.
  - Graph basic parametric curves with proper paths of travel by plotting points or eliminating parameters.
  - Convert between polar and rectangular coordinates and equations.
  - Graph polar equations.
- Use trigonometric functions in applications.
  - Investigate arc length, linear velocity, and angular velocity.
  - Represent a vector (a quantity with magnitude and direction) in the form and $ai + bj$.
  - Build and solve applications using sinusoidal models.