

Math 113 TR Syllabus Spring 2015

COURSE TITLE: Precalculus Trigonometry **INSTRUCTOR:** _____ **SECTION:** _____

PREREQUISITES: A grade of **C minus** or higher in Math 112

CREDIT: 3 semester hours

EMAIL: All correspondence for this course will be made through your crimson email account. If you have trouble with your crimson account, then you can get help at the OIT help desk located in Gordon Palmer. You can reach your instructor by emailing mal13mtlc@as.ua.edu. **Please put your instructor's name in the subject box.** Replies to automated emails will not be answered.

TEXTBOOK AND ACCESS CODE: "Algebra and Trigonometry", 5th ed. by Robert Blitzer, published by Prentice Hall. An access code is required to complete all assignments and tests for this course. It allows the student to access the publisher's website for the course, where all assignments and tests must be completed and where the entire textbook may be viewed online. Access codes can be purchased with or without a hard copy of the textbook at a bookstore or online from the publisher.

CALCULATOR: You will be allowed to use a **Casio FX-260-SOLAR School** scientific calculator on all tests or the calculator that is available on computer during testing. **Using another calculator is considered academic misconduct.**

COURSE DESCRIPTION: This course is a continuation of Math 112. It includes the study of trigonometric and inverse trigonometric functions, as well as extensive work with trigonometric identities and equations. Other topics contained in this course are: polar coordinates, complex numbers, DeMoivre's Theorems, vectors, and conic sections.

- The course presents the essential characteristics and basic processes of inquiry and analysis in the discipline.
- The course encourages the development of critical thinking skills and requires students to analyze, synthesize, and evaluate knowledge.
- The course considers its subjects in relation to other disciplines and to the human condition.
- The course is not limited to majors in any discipline.
- The course does not focus on professional skills.

GENERAL LEARNING OUTCOMES FOR 100-200 LEVEL COURSES:

- Students will be able to discriminate between reliable and less reliable information in their decision-making.
- Students will develop effective mathematical communication skills.

LEARNING OUTCOMES FOR THIS COURSE: Upon completion of this course, students will be able to

- Recognize and use trigonometric functions and their inverses in applications involving right and oblique triangles.
- Graph the trigonometric functions in the rectangular coordinate system.
- Solve trigonometric equations with angles using both radian and degree measure.
- Work with complex numbers in polar form, perform vector operations, and use vectors in applications.
- Recognize and graph conic sections and identify their pertinent components.

COURSE GRADES: This course is under the "A, B, C, and NC" policy, +/- grades will be given.

4 Tests	40%	(10% each)
Final Exam	30%	
Quizzes	10%	
Homework	9%	
Class Participation	1%	
Study Plan	10%	
Total	100%	

COURSE GRADE SCALE

A+	98% – 100%	A	92% – 97.9%	A-	90% – 91.9%
B+	88% – 89.9%	B	82% – 87.9%	B-	80% – 81.9%
C+	78% – 79.9%	C	72% – 77.9%	C-	70% – 71.9%

NC < 70% (NC means NO CREDIT)

Students must earn a minimum of 70% (C-) to successfully pass.

Note: The last day to drop this course with a W is March 25, 2015. No withdrawals from this course after this date.

TEST DAYS:

Test 1:	Wednesday	February 4
Test 2:	Wednesday	February 25
Test 3:	Wednesday	March 25
Test 4:	Wednesday	April 15
Final Exam:	Monday - Friday	April 27-30, May 1

ONLINE TESTS REGISTRATION PERIOD:

Test 1- 4: 8am. 1/19 – 5pm. 1/23
Final Exam: 8am. 4/13 – 5pm. 4/20

Test times available: check www.mtlc.ua.edu /Test Registration.

Final Exam times available: 8 am, 11:30 am, 3:30 pm, 7 pm (not all times may be available each day)

Please read Test Rules of this syllabus for detailed information.

Mathematics Technology Learning Center (MTLC) Information:

LOCATION: B1 Tutwiler; **PHONE:** 348-2592; **WEBSITE:** www.mtlc.ua.edu

HOURS: Monday – Thursday: 8am – 10pm

Friday: 8am – 4:45pm

CLOSINGS: MLK Junior Holiday: Monday 1/19

Spring Break: Monday 3/16 – Friday 3/20

NOTE: Last day for help in MTLC is Friday 4/24

Software Login Information: Registration in the software has already been done for you. Please don't change your login information. You can login to your math 113 course two ways:

1. Log into myBama, go to your Blackboard Learn courses, and click on Math 113, click Bridge.
2. Go to: www.ua.mylabsplus.com; username = crimson email prefix (ex: smith); password = CWID (ex: 12345678)

All Assignments (both Homework and Quiz) are due by 8:00AM on the given date.

Test 1 Material: Test 1 – February 4 (Wednesday)			
Date	Section #	Section Title	Completion Deadline
1/8		Orientation + Algebra Review	Hmw. Algebra Review Tue. 1/13
1/13	5.1	Angles and Radian Measure	Hmw. 5.1+Quiz 5.1 Thur. 1/15-8am
1/15	5.2	Right Triangle Trigonometry	Hmw. 5.2.1+5.2.2+Quiz 5.2 Tue. 1/20-8am
		Syllabus Quiz	Tue. 1/20-8am
1/20	5.3	Trigonometric Functions of Any Angle	Hmw. 5.3.1+5.3.2+Quiz 5.3 Thur. 1/22-8am
1/22	5.4	Trig Functions of Real Numbers; Periodic Functions	Hmw. 5.4+Quiz 5.4 Tue. 1/27-8am
1/27	5.5	Graphs of Sine and Cosine Functions	Hmw. 5.5+Quiz 5.5 Thur. 1/29-8am
1/29	5.6	Graphs of Other Trigonometric Functions	Hmw. 5.6.1+5.6.2+Quiz 5.6 Tue. 2/3-8am
2/3		Review	Hmw. Test 1 Review Wed. 2/4 - 8pm

Test 2 Material: Test 2 – February 25 (Wednesday)			
2/5	5.7	Inverse Trigonometric Functions	Hmw. 5.7.1+5.7.2+Quiz Tue. 2/10-8am
2/10	5.8	Applications of Trigonometric Functions	Hmw. 5.8+Quiz 5.8 Thur. 2/12-8am
2/12	6.1	Verifying Trigonometric Identities	Hmw. 6.1+Quiz 6.1 Tue. 2/17-8am
2/17	6.2	Sum and Difference Formulas	Hmw. 6.2.1+6.2.2+Quiz 6.2 Thur. 2/19-8am
2/19	6.3	Double-Angle and Half – Angle Formulas	Hmw. 6.3.1+6.3.2+Quiz 6.3 Tue. 2/24-8am
2/24		Review	Hmw. Test 2 Review Wed. 2/25 - 8pm

Test 3 Material: Test 3 – March 25			
2/26	6.5	Trigonometric Equations	Hmw. 6.5.1+6.5.2+Quiz 6.5 Tue. 3/3-8am
3/3	7.1	The Law of Sines	Hmw. 7.1.1+7.1.2+Quiz 7.1 Thur. 3/5-8am
3/5	7.2	The Law of Cosines	Hmw. 7.2+Quiz 7.2 Tue. 3/10-8am
3/10	7.3	Polar Coordinates	Hmw. 7.3+Quiz 7.3 Thur. 3/12-8am
3/12	7.5	Complex Numbers in Polar Form; DeMoivre's Theorem	Hmw. 7.5.1+7.5.2+Quiz 7.5 Tue. 3/24-8am
3/24		Review	Hmw. Test 3 Review Wed. 3/25 - 8pm

Test 4 Material: Test 4 – April 15 (Wednesday)			
3/26	7.6	Vectors	Hmw. 7.6.1+7.6.2+Quiz 7.6 Tue. 3/31-8am
3/31	7.7	The Dot Product	Hmw. 7.7+Quiz 7.7 Thur. 4/2-8am
4/2	10.1	The Ellipse	Hmw. 10.1+Quiz 10.1 Tue. 4/7-8am
4/7	10.2	The Hyperbola	Hmw. 10.2+Quiz 10.2 Thur. 4/9-8am
4/9	10.3	The Parabola	Hmw. 10.3+Quiz 10.3 Tue. 4/14-8am
4/14		Review	Hmw. Test 4 Review Wed. 4/15 - 8pm

Final Exam: April 27 – 30 & May 1		
4/21&4/23	Final Review	Hmw. Final Exam Review Fri. 5/1- 2pm

WORKING FROM HOME: The Math 113 course work can be done on your personal computer with internet access.

- There are two ways to get to your course:
 1. Log into MyBama go to your Blackboard Learn courses and click on Math 113.
 2. Log into ua.mylabsplus.com with your crimson email prefix and your CWID for password.
- The course MAY NOT WORK with Safari; use a different internet browser.
- If you get a “**timeout error**” when using the software, delete your browser’s cookies and/or try a different browser.
- **No deadline extension will be given because of issues with a home computer.** To be safe, work well ahead of the deadlines at home, so that if there is any problem you will be able to go to the MTLC and complete the assignment before the deadline.
- **Tests must be taken in the MTLC.**

ATTENDANCE/PARTICIPATION: Attendance for this course is **mandatory**. You are expected to attend all of your scheduled classes in their entirety and participate in the classrooms lectures and discussions. Class meets each Tuesday and Thursday unless noted. At the end of the semester one unexcused missed class will be dropped. **The use of any electronic devices such as personal laptops, smart phones, and MP3 players is prohibited during class.** The MTLC - computer lab in B1 Tutwiler - is available for you to do homework and quizzes and get free tutoring.

QUIZZES and HOMEWORK: A graded homework (or two) and a quiz will be assigned on each section covered. They must be completed before each due date and time. At the end of the semester the lowest 3 homework grades and the lowest 3 quiz grades will automatically be dropped. Be aware that some of the homework problems do not have the learning aids. You can select similar question for any question that you miss and try again. **You will have an unlimited number of attempts on each quiz; only the highest score will be counted.** You must hit the “Submit” button to score your quiz. All deadlines for homework and for quizzes are TTR at 8:00 am. NOTE: You may get help on homework problems but you will not be given help on your quizzes or tests.

STUDY PLAN: The study plan is due by 2pm on Friday 5/1. It consists of topics not mastered on quizzes (the latest quiz will count). Please use it as a way to study for each test and your final exam. The study plan counts as much as a test grade so make sure to take it seriously.

TESTS: All tests and the final exam must be taken in the computer lab (MTLC) by the scheduled deadlines posted on the front page of this syllabus. **The final exam is mandatory and comprehensive.** You must register for a time to take your tests on your scheduled test days. The dates and times for online registration are shown on the front page of this syllabus. Instructions for registration are in Test Rules below. You may take any test early (before its test week).

REPLACEMENT POLICY: The lowest test grade will be replaced with the grade made on the final exam if it improves your average. However, test grades penalized due to academic misconduct will not be replaced.

MAKE-UP POLICY: Missed assignments will be scored zero. No makeup tests will be given.

- If homework or quizzes are missed due to any circumstance, the zero scores will be part of your three dropped homeworks or quizzes at the end of the semester.
- **If a test is missed due to ANY circumstance, no makeup tests will be given.** The zero score will be considered your lowest and will be replaced by the final exam score. Only one zero test score may be replaced.
- Students who miss work due to official University business must make other arrangements **beforehand**.

EARLY COURSE COMPLETION: You can work ahead of the syllabus deadlines, and take tests and the final exam early. Once you have taken your final, you do not have to continue coming to class. All the remaining attendance requirements are automatically counted.

DISABILITY STATEMENT: Students with disabilities must be registered with the Office of Disability Services (ODS) before receiving any special academic accommodations. If you have a disability, but have not yet contacted ODS, please call 348-4285 or visit 133-B Martha Parham Hall East to make an appointment to register for services. ODS will provide packets of information about your specific accommodations, which you must distribute to **your instructors and to the MTLC (B1 Tutwiler)**. **The MTLC must receive your paperwork at least one week prior to a test to allow for accommodations on that test.** Students must bring their paper work each semester.

CODE OF ACADEMIC CONDUCT: All students in attendance at the University of Alabama are expected to be honorable and to observe standards of conduct appropriate to a community of scholars. The University expects from its students a higher standard of conduct than the minimum required to avoid discipline. Academic misconduct includes all acts of dishonesty in any academically related matter and any knowing or intentional help or attempt to help, or conspiracy to help, another student. [The Academic Misconduct Disciplinary Policy](#) will be followed in the event of academic misconduct.

MTLC RULES

1. The MTLC is a math classroom. Please be quiet during your visit to the MTLC.
2. Food, drinks (including water), tobacco products, companions, and talking on your phone are NOT allowed in the lab.
3. Other than mathematics, no activities such as: talking, surfing the Internet, playing computer games, typing a paper, sleeping, etc. are allowed in the MTLC. If these activities are observed, you will be asked to leave the MTLC.
4. Please do not hesitate to ask questions in the MTLC. Staff members are there to help you.

TEST RULES:

All tests must be taken in the MTLC.

1. There are four 70-minute tests and a 150-minute mandatory, comprehensive final exam. Test dates are listed on the front page of the syllabus.
2. You may take your tests early: "Early" means **before the week of your test**. No registration is needed for early tests. You may not begin a test if the MTLC is scheduled to close before the end of your full allotted time: usually you must begin by 4:45pm Mon – Thursday, or by 3pm on Friday (2pm for a final exam).
3. **You must register for a time to take an exam on a test deadline day.** The front page of the syllabus lists beginning and ending dates/times for online registration for each exam. To register online, go to the MTLC website (www.mtlc.ua.edu), select link *Test Registration*, log in as instructed, select link *Register*, then choose an available time. You will take ALL tests at this same time on their scheduled days. A separate online registration will occur for the Final Exam. You may freely cancel or change your test time while online registration is open. Be sure to verify your registration: log back in to the test registration site.
4. **If you miss a test**, your zero score will be considered your lowest and may be replaced by your final exam score. However, only one zero test score may be replaced.
5. Arrive on time for your test. Tardiness will cost you working time on the test. Bring your ID and pencils with you. Follow the signs to the back hallway. Staff will check your ID and give you a personalized test paper (which is your initial scratch paper), then direct you to your seat.
6. The **Casio FX-260-Solar School** scientific calculator is the **only** hand-held electronic device allowed during testing. All calculator covers must be removed and put out of sight during testing. Use of any unapproved electronic device during a test will be treated as academic misconduct. No help with calculator will be given during tests.
7. Cellphones must be turned completely off and placed with all other belongings on the floor. As soon as you are seated, you may begin your exam. The MTLC will give you additional scratch paper as needed; no other paper is allowed. When you are finished, bring all your papers to the lab entrance where staff will collect them.
8. You can review your test before you leave the lab. You may **not** write down any information pertaining to test questions to take with you when you leave the MTLC after an exam. You may not share any test information with anyone who hasn't taken the test. Violators will be charged with academic misconduct.
9. **You may not leave your table during a test without permission.** This includes getting water and using the restroom. Cell phones must be left at the table.
10. Special MTLC Study Hours during test weeks: Monday 8am-10pm, Tuesday – Thursday 9pm-10pm ONLY, Friday 8am-4:45pm. The lab will be closed for studying, and open only for testing during finals week.

SEVERE WEATHER PROTOCOL: In the case of a tornado warning (tornado has been sighted or detected by radar; sirens activated), all university activities are automatically suspended, including all classes and laboratories. If you are in a building, please move immediately to the lowest level and toward the center of the building away from windows (interior classrooms, offices, or corridors) and remain there until the tornado warning has expired. Classes in session when the tornado warning is issued can resume immediately after the warning has expired at the discretion of the instructor. Classes that have not yet begun will resume 30 minutes after the tornado warning has expired provided at least half of the class period remains.

UA is a residential campus with many students living on or near campus. In general classes will remain in session until the National Weather Service issues safety warnings for the city of Tuscaloosa. Clearly, some students and faculty commute from adjacent counties. These counties may experience weather related problems not encountered in Tuscaloosa. Individuals should follow the advice of the National Weather Service for that area taking the necessary precautions to ensure personal safety. Whenever the National Weather Service and the Emergency Management Agency issue a warning, people in the path of the storm (tornado or severe thunderstorm) should take immediate lifesaving actions.

When West Alabama is under a severe weather advisory, conditions can change rapidly. It is imperative to get to where you can receive information from the [National Weather Service](#) and to follow the instructions provided. Personal safety should dictate the actions that faculty, staff and students take. The Office of Public Relations will disseminate the latest information regarding conditions on campus in the following ways:

- Weather advisory posted on the UA homepage
- Weather advisory sent out through Connect-ED--faculty, staff and students ([sign up at myBama](#))
- Weather advisory broadcast over WVUA at 90.7 FM
- Weather advisory broadcast over Alabama Public Radio (WUAL) at 91.5 FM
- Weather advisory broadcast over WVUA 7. WVUA 7 Storm Watch provides a free service you can subscribe to that allows you to receive weather warnings for Tuscaloosa via e-mail, pager or cell phone. Check <http://www.wvua7.com/stormwatch.html> for details.

EXTRA - HELP: Center for Academic Success (CAS): website: <http://cas.ua.edu> , phone number 348-8854