Trigonometry Math 112 Spring 2020 CRNS: 40105, 41341, 44108

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Course:

We will learn about trigonometric functions and their graphs, identities, inverse trigonometric functions, trigonometric equations, right triangle trigonometry, polar coordinates, vectors, and conic sections. Upon completion of the course, the student will be able to:

- Calculate the exact (when possible) and approximate value of the 6 trigonometric functions using both radian and degree measure.
- Solve for all of the side lengths and angles of a right or oblique triangle, using information given.
- Graph trigonometric functions (emphasizing sine, cosine and tangent), and conic sections, transform their graphs, and state important features of their graphs.
- Verify trigonometric identities and use them to solve trigonometric equations involving one or more trigonometric functions.
- Perform calculations involving vectors and solve vector applications.

Required for this class:

- 11-week paid ALEKS 360 access code. This code will give you access to the ebook and the adaptive course software. Through our ALEKS class you have the option to order a loose leaf version of the textbook for an additional \$25. However a paper version of the book is not required.
- Internet Access, Computer (Windows, Mac, iPad) with Webcam and Microphone
- Scientific Calculator. We use only scientific calculators for all exams.
- Access to a graphing calculator, a graphing calculator app on your phone is fine (not used on exams) or Desmos (for computer or tablet use). There is no need to buy a graphing calculator.

Requirements and Grades:

- 5% ALEKS Whole Pie Percentage Goal 100% of Topics Mastered
- 20% ALEKS Weekly Topics and ALEKS Exam Reviews
- 20% Written Work, Moodle Quizzes, Projects, Forum Posts, and Video Watching
- 36% Midterm Exams (2 Video Proctored Midterm Exams)
- 19% Final Exam (1 Video Proctored Final Exam)

All of your course grades will be kept in the ALEKS gradebook only.

Course Grades:

LBCC does not offer plus/minus grading. This class will have final course grades assigned according to the standard 90%, 80%, 70%, 60% grade cutoffs. You must earn at least a C grade in Math 112 in order to move on to higher math classes for which Math 112 is a prerequisite.

Participation: The biggest reason why students fail to complete a math class is due to poor participation. If you put off working on math during the week, and you wait until the deadline, you will find it very difficult to finish the work and get caught up. Plan to spend at least one hour every day working on trigonometry. You will most likely need two or three hours almost every day. You will be REQUIRED to watch all of the videos provided so you get the direct instruction you need and this will become part of your course grade. If you are someone who finds it hard to get motivated to do work then this is not the class for you. It will take daily discipline to complete trigonometry online. There will be deadlines each week for all tasks. Meeting deadlines each week is a critical part of being successful.

Incomplete Grades:

An incomplete grade may be issued for a student who is making satisfactory progress (Grade of C or better) in the course, but who has failed to complete the final exam. Any student seeking an incomplete must discuss this option with the instructor and sign an agreement prior to the time when grades are issued.

ALEKS Adaptive Homework Platform and Ebook:

You will complete the majority of your assigned work through an online and adaptive program called ALEKS. You are required to purchase the ALEKS 360 access code through the bookstore or through the ALEKS website. It is through ALEKS where you will have access to an ebook and any other videos or tutorials the ebook provides. It is rich in support if you use it well. You will access ALEKS through the ALEKS website. I have provided instructions for both options below.

Access ALEKS through the ALEKS website

Go to www.ALEKS.com or click on the ALEKS link in Moodle and sign in or create a new user account. You need the course code and you can use the free two-week access code to get started. You will need to pay for the code before the free two-week code expires.

ALEKS Class Code: 4W4YC-MPALD Free two-week access code: F625C-AC450-31972-FDB49

eBook:

Through the ALEKS site you will have access to the eBook **College Algebra with Trigonometry** 1st Edition by Miller and Gerken. The eBook contains videos and is a valuable resource. If you really want a paper copy, you can order a paper version of the text through ALEKS but really if you have ANY trigonometry book then you can study topics from that book, so there is no need to buy this exact paper book. Your ALEKS 360 access code gives you access to the adaptive learning software using the Miller book when you need explanations. Email me if you have questions about this.

Instructor Videos:

Your instructor has provided several videos each week that offer direct instruction, just like you would get if you were in class. You are required to watch each video as soon as possible each week (see Moodle for specific video watching deadlines). This will count in your course grade and will give you a good foundation to work on your ALEKS homework and allow you to fully participate in Zoom question and answer sessions with your instructor. Each week your instructor can run a report that shows which video each student watched and for how long, so this will become part of your course grade.

Homework and ALEKS:

There are 128 topics in ALEKS to master in this class. You may find that you already have some topics mastered when you get into our ALEKS course. Each week there are topics assigned and the weekly deadlines are always Sunday at midnight. New topics will be added each Monday. In Moodle you will have weekly videos that I made and written assignments but you should be getting into ALEKS each day to work on topics. This is your main homework. If you master all the topics for a particular week then you will be able to work ahead or you can go back and master topics you may not have learned from a previous week. This ALEKS program is adaptive and customizes to each student so you each will have a unique experience. If you have weekend plans that do not include homework then it is up to you to complete the ALEKS topics before the weekend. You have the freedom to decide when during the week to complete the assigned topics. However if you wait until Sunday to start learning the weekly topics you will very likely run out of time. The best plan is to work hard early in the week so you have time to get help and then finish up any last topics on Friday. Each week your goal is to learn 100% of the topics.

Missing ALEKS Deadlines:

If you do not complete your ALEKS work by the due date then you will lose points no matter why you missed the deadline. There are ten weekly deadlines that you will see in your ALEKS gradebook. No deadlines will be extended for ALEKS topics. Your goal is to always finish all the topics for a week, however, if you still have a few left then you just will move on to the next week's topics each Monday. ALEKS will present you with missed topics if they are critical to the week's work but we always need you working in the current topics first. In any week where you learn all of the topics, ALEKS will then open up all weeks and you can go learn topics you missed from previous weeks.

Written Work in Moodle:

As often as possible, and most likely once each week, you will be assigned problems to write up and turn in through Moodle so it can be graded. You will either scan and upload your written work or you will take a photo of your work and upload the photo to Moodle. Keep in mind that Moodle will lock at 11:59pm on the deadline day and will not accept additional submissions.

You will want to download and print the written assignment. Then write up your answers carefully, showing your support work, on ONE page only. Your scratch work should be done separately and then your final work written up neatly. The moodle dropbox for assignments is set to accept ONE page only per student. If you don't have a printer then you can simply copy down by hand the critical parts of the assignment and write up your work neatly on one page of paper. If you don't have a scanner then take a photo of your assignment, make sure it is not blurry and is well lit, and upload it to Moodle.

There will be at least three tasks during the term where you post your work, post to a forum, or make a video for others in the class to review. There may be a quiz in Moodle or in ALEKS during the week as well. These tasks will always be listed in Moodle so on Monday of each week it is important to check Moodle so you can plan your week. Late written work is not accepted.

Oh No! My Written Assignment is Late and Moodle Won't Take It!

Late work is not accepted. However, each student may have TWO Written Assignment Late Passes that can be used ONLY on the weekly written assignments. The late pass gives a 24 hour extension to get the written assignment done. Moodle will not accept it late so you will have to email the assignment to your instructor and be sure to tell your instructor you are using one of your two late passes. Your instructor will ALWAYS email you back to let you know the assignment was received.

Midterm Exams Proctored at Home or at LBCC if Possible:

There are two midterm exams. You will take each exam in a proctored setting from home. When taking tests at home we will use a Lockdown Browser and Respondus Video Monitoring. The Lockdown Browser is a one-time download. The video monitoring will video you during the entire test and flag any inappropriate testing behavior for the instructor to review. You will need to be using a windows computer, Mac, or iPad on which you can download the Lockdown Browser and which has a webcam and microphone. See the <u>System Requirements.</u> If you don't have the correct computer system, then think about family, friends, or a neighbor who might let you borrow such a device for the three proctored exams. We will all have to get creative to complete this term. Exams must be taken by the deadline. At most one midterm exam can be taken after the deadline but will earn at most 80%.

Midterm Exam Review Objectives in ALEKS:

Prior to each midterm exam you will see an Exam Review Topics objective open up in ALEKS. These are not new topics. These topics are the ones you should have already learned and the ones the test will concentrate on. They open up all together in one objective so you can focus on what you do not already know or review any topic conveniently. Under the Review option there is a filter so you can review any topic you previously learned.

Final Exam:

Your final exam is cumulative and will be taken by the end of week 10. It must also be taken in a proctored setting from home using the Lockdown Browser and Respondus Video Monitoring. During week 10 you will see a Final Exam Review Topics objective open up in ALEKS. This contains all the topics that will be stressed on the final exam. These are not new topics. They are topics you should have already learned in previous weeks. If you learned them all then you will have nothing new to complete but all the topics will be in that objective and available for review. You can go and review the topics by using the drop-down filter under the Review setting.

Help:

- Ask questions by sending your instructor an email.
- Send your instructor a photo of your work so she can see what you are doing.
- Log into one of the Zoom online student hours advertised by your instructor.
- Watch for email information about remote help offered through the Learning Center.

Weekly Schedule: This course has a firm weekly schedule. The exam deadlines will not change. This is not a "self-paced" course. If you do not stay on schedule it is extremely difficult to get caught up.

BE SURE YOU CHECK YOUR LBCC EMAIL SEVERAL TIMES PER WEEK AND LOG INTO MOODLE TO CHECK THE WEEKLY DEADLINES. IT IS YOUR RESPONSIBILITY TO MAKE SURE YOU ARE GETTING EMAILS FROM ME (I WILL SEND AT LEAST TWO PER WEEK.) AND MAKE SURE YOU KNOW ALL DEADLINES.

Weeks	Sections From eBook, Topics, and Exam Deadlines
Week 1 Apr 6 - Apr 12	The ALEKS Initial Knowledge Check is Due by Tuesday, April 7 at midnight. Students who do not complete the initial knowledge check by the deadline will be dropped from the class. Then Complete 16 ALEKS Topics: Section 5.1, 5.2, and 7.1
Week 2 Apr 13 - Apr 19	Practice Quiz in ALEKS over Week 1: April 13 or 14 18 Topics: Sections 5.3, 5.4
Week 3 Apr 20 - Apr 26	15 Topics: Sections 5.5, 5.7
Week 4 Apr 27 - May 3	April 27 and 28: 45 Exam 1 Review Topics EXAM 1: Deadline Wednesday, April 29 April 29 to May 3: After the exam, 8 Topics: Sections 6.1, 6.2, 6.3 (double angle identities)
Week 5 May 4 - May 10	17 Topics: Sections 6.3 (half-angle identities), 6.5, 7.1
Week 6 May 11 - May 17	14 Topics: Sections 7.2, 7.3, 8.1, 8.2
Week 7 May 18 - May 24	May 18 and 19: 39 Exam 2 Review Topics EXAM 2: Deadline Wednesday, May 20 May 20 to 24: After the exam, 8 Topics: Sections 8.4 Geometry of Vectors and Components
Week 8 May 25 - May 31	10 Topics: Section 8.4
Week 9 Jun 1 - Jun 7	14 Topics: Section 2.2, 8.5, 11.1
Week 10 Jun 8 - Jun 12	7 Topics: Sections 11.2 DUE TUESDAY Midnight 68 Final Exam Review Topics Open Wednesday through Friday Final Exam: Deadline Friday, June 12

Cheating:

If you cheat on an exam, you will receive a zero grade on the exam, and I will file an incident report with the Dean of Students. A second episode of cheating will guarantee an F grade for the course and more severe disciplinary action from the school. Copying written work from another student is cheating also. In those cases, you will earn no credit for the assignment or project and I will file an incident report. If you are having so many problems that you feel the only way out is to cheat, then you need to talk with me. I am here to help you succeed. There are ways to work things out for students who are willing to try.

Anyone With Special Needs? LBCC is committed to inclusiveness and equal access to higher education. If you have approved accommodations through the Center for Accessibility Resources (CFAR) and would like to use your accommodations in the class, please talk to your instructor as soon as possible to discuss your needs. If you believe you may need accommodations but are not yet registered with CFAR, please visit the CFAR Website for steps on how to apply for services or call 541-917-4789.

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