Trigonometry
MTH 112 Fall 2020 CRNs 20185; 23443

Instructor: Sheri Rogers class time: T/R 10:00am-11:50 am; T/R 1:00-2:50 pm Office: Zoom Office - appointment link class location: Zoom links on Lumen and Moodle email: rogerss@linnbenton.edu

Course Description: MTH 112 introduces trigonometric functions, trigonometric identities, inverse trigonometric functions, trigonometric equations, right triangle trigonometry, complex numbers, and polar coordinates. It also includes parametric equations, vectors and conic sections.

Prerequisite: MTH 111 College (Algebra) or equivalent, each with a grade of "C" or better.

Student Learning Outcomes: Upon completion of the course, the student will be able to:

1. Calculate the exact (when possible) or approximate value of the 6 trigonometric functions using both radian and degree measure.
2. Solve for all of the side lengths and angles of a right or oblique triangle, using information given. 3. Graph trigonometric functions (emphasizing sine, cosine and tangent), and conic sections, transform their graphs, and state important features of their graphs.
4. Verify trigonometric identities and use them to solve trigonometric equations involving one or more trigonometric functions.
5. Perform calculations involving vectors and solve vector applications.

Required for this class:

- ***Lumen*** Course Activation code. It sells in the bookstore for $31.25. It can be purchased online for $25. This code will give you access to the ebook, online homework, and support materials such as video lessons. (A paper version of the book is available for purchase, but not required.)
- Web-Camera for Testing and Class Participation
- Scientific Calculator. We use only scientific calculators for tests.
- Access to a graphing calculator, a graphing calculator app on your phone (for in-class use but not on exams) or Desmos (for computer or tablet use). There is no need to buy a graphing calculator.
- Ability to scan documents, create pdf documents for uploading, create videos and share links. **Grading**

Policy: Your grades may be viewed on *ohm.lumenlearning.com* and will be based on the following:

2 Tests (15% each) 30%
Final Exam 20%
Online Homework 15%
Projects 15%
Group Class Work 20%

Grading Scale: A: 90 -100% B: 80 – 89% C: 70 - 79% D: 60 - 69% F: 0 - 59%
A grade of Incomplete may be assigned at the discretion of the instructor under special circumstances. The student must have completed the majority of the course, been in regular attendance and passing the course prior to the "special

circumstance".

Tests: All tests (including the final) will be given through Moodle with Respondus Lockdown Browser and Video Monitoring. Tests must be taken on the scheduled day. The *tentative* test dates are listed on the course calendar. **The date of the final will not change: Tuesday, December 8, 2020.**

eBook:
Through the Lumen website you will have access to the eBook *Precalculus 2 An Investigation of Trigonometry Chapters 5-9* Edition 2.1 by David Lippman and Melonie Rasmussen. You can purchase a paper version of the text if you like, but if you have ANY trigonometry book then you can study topics from that book.

Online Homework : ***Lumen*** is an Open Education site that we will use in Math 112. Students will log in to view the e-book textbook and instructive videos for each section. Your **daily homework assignments** will be completed on this site. Each assignment will be available for a given length of time and you must complete the assignment and enter your answers online by the deadline date and time. Each student has 4 **"late passes"** they can use to extend a homework deadline. These must be applied ***before*** the assignment is due. **The extension will last 24 hours. At the end of the quarter your lowest score from this category will be dropped.**

There is a link to ***Lumen*** on my instructor website. Please **enter your LBCC student e-mail address after you login.** I will e-mail the class from ***Lumen*** if there is a class cancellation or correction.

URL: https://ohm.lumenlearning.com
Course ID: 48533
Key: SrogersF20

Online Homework Expectations:

You are expected to keep a notebook of loose leaf paper (preferably engineering paper or blank paper) for your homework assignments. **You are expected to work through each problem of the assignment and then write up neat, readable solutions for your notebook. Include the original problem unless it is a lengthy word problem.**

Other Work/Quizzes:
Quizzes, in-class assignments, and Write-Ups will make up this portion of your grade. **Quizzes** will be very short and based on the most recent homework or an upcoming lesson. **In-class group work assignments** will be short assignments that allow you to put what you just learned into immediate practice. At the end of the quarter, your lowest score from this category will be dropped.

Projects:
Students will be assigned short projects that are applications of Trigonometry. Each one will be explained in detail when it is assigned. **Write-Ups :** I will assign and collect a selected few problems for certain topics. You will hand in a careful, complete, written solution to these problems. The write-up will include: the problem statement, all steps necessary to solve it, appropriate explanation of the process, and the answer clearly stated. It should be written so that anyone in the MTH 112 class would be able to follow your solution. These will be graded based on correctness **and on the communication of your solution.**

Late Work: Class Group Work is due by 11:59 p.m. on Fridays. Written work for the week can be turned in late for a 20% deduction in points if I receive it by 11:59 p.m. on Sunday following the due date.

Notes online: Class notes will be available from the link to OneNote on the ***Lumen*** site.
Help: If you have questions, PLEASE **visit my Zoom Office** and ask! I have open appointment time slots available. **Study**

groups are encouraged! Meet up in our MTH 112 Discord site anytime day or night. Many students find that working with classmates is the best way to learn and understand the material. Don't forget about the **e-book and videos** also on ***Lumen.***

- *Remote* Math Support services for all levels of math are available through a single Zoom link: https://linnbenton.zoom.us/j/94627678411.
    - Open from 9am - 7pm Monday through Friday, 11am - 4pm Saturday, and, *new this term*, 11am - 4pm on Sunday.
    - The Learning Center has a Discord server. This is a space where students can meet and collaborate on their studies. Students (and faculty) are welcome to join us at https://discord.gg/geMqSqV. ● You are also eligible for free tutoring through the Tutoring Center.

Expectations:

- I expect that my students will be involved in class. This includes being present, asking questions and participating in discussions. *(The instructor notes excellent attendance/attitude and will sometimes "bump up" a borderline grade for such students.)*
- You should come to class prepared (this means you should bring your notebook, calculator, etc. in addition to having your work with you). Spend **at least 10 hours per week working on this class.** Work ahead! ● I expect you will be respectful of everyone in the class, in word as well as behavior. Along these lines, I ask that you **turn off and/or put away your cell phone, mp3 player, laptop, etc. during class so as to avoid causing a distraction.**

Academic Honesty: I assume that you are ethical and honest. However, if there is an incident of academic dishonesty (cheating), you will receive a score of zero for that test/assignment and the incident will be reported to the college administration for possible further disciplinary action. If there is a second offense, you will receive a grade of F for the course and the incident will be reported to the college administration with a recommendation for disciplinary action.

Special Circumstances: 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.

Nondiscrimination Statement: LBCC prohibits unlawful discrimination based on race, color, religion, ethnicity, use of native language, national origin, sex, sexual orientation, gender, gender identity, marital status, disability, veteran status, age, or any other status protected under applicable federal, state, or local laws. For further information see Board Policy P1015 in our Board Policies and Administrative Rules. Title II, IX, & Section 504: Scott Rolen, CC-108, 541-917-4425; Lynne Cox, T-107B, 541-917-4806. To report: linnbenton-advocate.symplicity.com/public report.

Basic Needs: Any student who has difficulty affording groceries or accessing sufficient food to eat every day, or who lacks a safe and stable place to live, and believes this may affect their performance in the course, is urged to contact the Roadrunner Resource Center for support (resources@linnbenton.edu , or visit us on the web www.linnbenton.edu/RRC under Student Support for Current Students). Our office can help students get connected to resources to help. Furthermore, please notify the professor if you are comfortable in doing so. This will enable them to provide any resources that they may possess.

The instructor reserves the right to make changes to the syllabus/calendar at any time.

Link to Tentative Course Calendar