

**MTH 112 Trigonometry**

**Term: Winter 2020 CRN: 32615**

Instructor: Hassan Mehdi class times: MW 4:30-6:20

F 4:30-5:20

Office: BC102 class location: BC 234

Office Hours: Mon 3:30-4:30 email: mehdih@linnbenton.edu

Course:

We will discuss trigonometric functions and their graphs, identities, inverse trigonometric functions, trigonometric equations, right angle 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 the side lengths and angles of a right or oblique triangle using the information given.
* Graph trigonometric functions, 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 Materials:**

* Tablet or Laptop (available for purchase or rent in bookstore if you don’t have one.)
* The book: “Trigonometry”, by Cynthia Young, 4th edition by John Wiley.
* John Wiley access code to do online homework.
* link: [www.wileyplus.com/class/745045](http://www.wileyplus.com/class/745045)
* You can sign up for 2 weeks grace period and then once purchased the code, use the same access credentials in order not to lose your work.
* Access to graphing calculator, a graphic calculator app on your phone (for in-class use but not for exams) or Desmos (for computer or tablet use). There is no need to buy a graphic calculator. We use only scientific calculators for exams.

**Grading Policy:**   Your grades will be based on the following:

 Online homework 20%

 In-Class Work 10%

2 Mid-term Exam 30%

Chapter summary + Take home homework/project 10%

Comprehensive Final Exam 30%

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 most of the course, been in regular attendance and passing the course prior to the “special circumstance”.

**Tests:**

* The **Midterm Exams** will be taken in our classroom and it has a time limit of one class period.  The test must be taken on the scheduled day.  If you miss this test you will get a score of zero. Testing at an alternate time will only be allowed for special prearranged circumstances.  However, the midterm test grade may be replaced by the final exam score, up to a maximum of 80%.
* **Midterm I: Wednesday of the 4th week.**
* **Midterm II: Wednesday of the 8th week.**
* **Final Exam is date: Monday, March 16, 2020. Time 3:00 – 4:50 pm.**

**Online Homework:** To be completed later. Still working with John Wiley customer support to complete the set-up. There will be online homework with deadlines shown on Wiley Plus website**.** You will need to purchase an access code in order to get logged in.

**Chapter summary + Take home homework/project.**  Every week starting the second week, you will be turning in summary of each chapter in addition to take home activity/project assigned. The due date for this work will be always be always on Wednesday at the beginning of class time. Please check the deadlines attached to this syllabus. Chapter summaries are due whether we have covered the topics or not. They are intended to prepare you to understand these topics. Summaries are to be handwritten, clear, neat, and no less than three pages. Exercises and activities to be attached at the end of these summaries.

**In-Class Work:**  Students will be actively participating in learning activities and group work every class meeting.  Generally, these activities must be done in class and cannot be made up. These are the lessons for this course.  The activities are designed to help students develop and understand the concepts behind the math skills and how to apply them to various situations.  The experiences gained from working in the groups will be a major component in determining the student’s success in this course.  **Attendance is therefore required.**   At the end of the quarter your two lowest scores from this category will be dropped.

**Late Work:** No late in class assignments will be accepted except in very specific and verifiable circumstances. Likewise, no late tests will be issued except in very specific, verifiable circumstances. Please talk to me about this if you have any questions.

**Help:**  If you have questions, PLEASE **come see me** and ask!  I have scheduled office hours, but you’re welcome to come in at other times too.  **Study groups** are encouraged!  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** available on Wiley Plus website

**Use the Learning Center:**  The Learning Center, WH226 at the Albany campus or at the Benton center. Both are excellent places to study and to get help with your homework.  (Please remember to log on and log off the computer with each visit to the Learning Center.) The other LBCC campuses have similar facilities with Math Help available.

* There is free wireless available in the Learning Center (and lots of places to plug in so your battery won’t be depleted.)
* The relaxed atmosphere and table arrangement in the Learning Center provide a great location for **study groups** to meet and work.
* Instructional assistants are available at the **help desk** and the **Math Angle** to answer your math questions
* The Learning Center offers some **free individual and small group tutoring** in addition to the help desk.

**Computers:**  Computer labs are open to students in the Library and in the Learning Center.

Laptops are usually available for short-term check out from the Library.

**Expectations**:

* I expect that my students will be involved in class.  This includes being present, on time, 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, tablet/laptop, etc. in addition to having your work with you).  Spend **at least 8 hours per week working on this class.**
* 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 unless it is being used for an activity 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:**  Students who have any emergency medical information the instructor should know of, who need special arrangements in the event of evacuation, or students with documented disabilities who may need accommodations, should **make an appointment with the instructor as early as possible as, no later than the first week of the term.**

**Request for Special Needs or Accommodations**

Direct questions about or requests for special needs or accommodations to the LBCC Disability Coordinator, RCH-105, 6500 Pacific Blvd. SW, Albany, Oregon 97321, Phone 541-917-4789 or via Oregon Telecommunications Relay TTD at 1-800-735-2900 or 1-800-735-1232. Make sign language interpreting or real-time transcribing requests 2-4 weeks in advance. Make all other requests at least 72 hours prior to the event. LBCC will make every effort to honor requests. LBCC is an equal opportunity educator and employer.

**LBCC Comprehensive Statement of Nondiscrimination**

LBCC prohibits unlawful discrimination based on race, color, religion, ethnicity, and 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](http://linnbenton.edu/42145BA0-3DCC-11E3-AA36782BCB47BBE7). Title II, IX, & Section 504: Scott Rolen, CC-108, 541-917-4425; Lynne Cox, T-107B, 541-917-4806, LBCC, Albany, Oregon.  To report:  [linnbenton-advocate.symplicity.com/public\_report](http://linnbenton-advocate.symplicity.com/public_report)

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

**Due date for Chapter summary + Take home homework/project**

Chapter 1. Right Triangle Trigonometry 1/15/2020
Chapter 2. Trigonometric Functions 1/22/2020
Chapter 3. Radian Measure and the Unit Circle Approach 1/29/2020
Chapter 4. Graphing Trigonometric Functions 2/05/2020
Chapter 5. Trigonometric Identities 2/12/2020
Chapter 6. Solving Trigonometric Equations 2/19/2020
Chapter 7. Applications of Trigonometry: Triangles and Vectors 2/26/2020
Chapter 8. Complex Numbers, Polar Coordinates, and Parametric Equations 3/04/2020
Appendix A: Algebraic Prerequisites and Review
Appendix B: Conic Sections 3/11/2020