

TRIGONOMETRY - MTH 112

Winter 2020

INSTRUCTOR: Roger Maurer

TIME: MTWRF 8:00 - 8:50 AM

CLASSROOM: WOH 120

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OFFICE: WOH 102

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INSTRUCTOR WEBSITE: <http://cf.linnbenton.edu/mathsci/math/maurerr/web.cfm?pgID=124>

OFFICE HOURS: T,F 10 – 10:50 AM, M,F 11 – 11:50 AM, R 1 – 1:50 PM

TEXT: Trigonometry, 4th edition, by Cynthia Young

CRN: 30148

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 97 (Practical Geometry) **AND** MTH 111 (College Algebra), each with a grade of "C" or better.

ASSIGNMENTS

<u>SECTION</u>	<u>ASSIGNMENT</u>	<u>SECTION</u>	<u>ASSIGNMENT</u>
1.1	1 - 86 by 5's, not 61	5.3	1 - 6 all, 13 - 17 all, 25 - 29 all, 58
1.2	1 - 34 by 3's, 45 - 52 all, 54	5.4	1 - 12 all, 17 - 20 all, 27 - 30 all
1.3	1 - 21 all, 32, 49 - 58 all		
1.4	1 - 9 all, 10 - 55 by 3's, 77	6.1	1 - 8 all, 13 - 18 all, 25 - 43 by 3's, 52 - 58 all, 67, 70, 72, 73
1.5	5 - 50 by 5's, 57, 66, 73	6.2	1 - 15 all, 19, 20, 21, 27, 29, 30 33, 43 - 47 all, 67
2.1	1 - 56 by 5's, 60, 63, 67 - 71 all	6.3	2 - 23 by 3's, not 8, plus 37, 38, 49
2.2	1 - 31 by 3's, 41, 43, 44, 46		
2.3	1 - 16 by 3's, 31 - 64 by 3's, 71 - 75 all	7.1	1 - 36 by 5's, 43, 47, 50, 59 - 62 all
2.4	1 - 52 by 3's, 65, 74	7.2	1 - 25 by 3's, 30, 37, 42, 45, 57, 61 - 64 all
3.1	1 - 37 by 3's, 52 - 76 by 3's, 90, 93, 96	7.3 (EC)	1 - 25 by 3's, 37, 42, 45
3.2	1 - 61 by 5's, 64, 65	7.4	1 - 66 by 5's, 69, 70, 76, 79, 81, 87, 90, 95 - 100 all
3.3 (EC)	1 - 46 by 5's, 55 - 64 all	7.5	1 - 46 by 5's, 53, 60, 63 - 66 all
3.4	1 - 49 by 3's, 64, 65, 81 - 84 all		
4.1	2 - 44 by 3's, 53 - 58 all, 66, 71	8.4	1 - 56 by 5's, 61, 64
4.2	1 - 37 by 3's, 47 - 50 all, 73	8.5 (EC)	1 - 31 by 3's
4.3	1 - 25 by 3's, 45		
5.1	1 - 13 by 3's, 22 - 34 by 3's, 46, 59, 71	B.2	1 - 8 all, 33 - 42 by 3's
5.2	1 - 10 by 3's, 22 - 49 by 3's, 35	B.3	1 - 4 all, 7 - 16 by 3's, 25 - 30 all, 35
		B.4	1 - 4 all, 7 - 16 by 3's, 25 - 30 all, 33

ASSIGNMENTS:

Each assignment will be handed in (by the end of class) two class days after it is covered in class to have a chance of receiving full credit (4 points). If an assignment is handed in one class day late you can receive at most 3 points for that assignment. If an assignment is handed in more than one class day late you will receive no points. The assignments that are handed in on time will be graded in the following way: I will check some of the questions in each assignment. If they are all correct, you will receive 4 points; if there is only one incorrect, you will receive 3 points; if several of them are wrong - 2 points; if most of them are wrong - 1 point.

EXAMS:

Exam I: (Sections 1.1 – 3.2)

Tuesday, January 28

Exam II: (Sections 3.3 – 5.3)

Wednesday, February 19

Final Exam: "Comprehensive"

Wednesday, March 18 (8:00 – 9:50 AM)

HELP: If you have any questions, please ask. I will help you whenever I can. You will find me in my office (WOH 102) during my office hours, but do not hesitate to come at other times as well. There are instructional assistants in the Learning Resource Center (above the Library) that can help you when you are having difficulties. When you use the Learning Resource Center, be sure to sign in and out on the computer.

HOW TO GET POINTS:

Assignments (best 28)	100 points (converted by multiplying by 100/112)
Exam I	100 points
Exam II	100 points
Final Exam	<u>150 points</u>
TOTAL	450 points

GRADING:

A 405 - 450 points
B 360 - 404 points
C 315 - 359 points

D 270 - 314 points
F 0 - 269 points

NO "Y" grades will be assigned in this course.

An incomplete grade (IN) may be assigned to a student who misses exactly one of the exams, but a contract for completion of the course needs to be signed by the student before the incomplete grade will be assigned.

Special Circumstances: Students who may need accommodations due to documented disabilities, who have medical information which the instructor should know, or who need special arrangements in an emergency should speak with their instructor during the first week of class. If you believe you may need accommodations but are not yet registered with the Center for Accessibility Resources (CFAR), please visit the [CFAR Website](#) for steps on how to apply for services or call [\(541\) 917-4789](tel:541-917-4789).

Academic Dishonesty: If there are any incidents of cheating, an incident report will be sent to the Director of Admissions, and it will have severe consequences for the student.

LBCC Comprehensive Statement of Nondiscrimination:

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](tel:541-917-4425); Lynne Cox, T-107B, [541-917-4806](tel:541-917-4806), LBCC, Albany, Oregon. To report: linnbenton-advocate.symplicity.com/public-report.

Cultural Richness: To promote academic excellence and learning environments that encourage multiple perspectives and the free exchange of ideas, all courses at LBCC will provide students the opportunity to interact with values, opinions, and/or beliefs different than their own in safe, positive and nurturing learning environments. LBCC is committed to nurturing the development of culturally literate individuals capable of interacting, collaborating and problem-solving in an ever-changing community and diverse workforce.

Basic Needs Statement: 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.

Outcomes: Upon completion of this 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.