Marshall University course Syllabus

Course Title/Number	MTH 122 – Plane Trigonometry – Sec 204– CRN 4111 – (3 credits)
Semester/Year	Spring 2015
Days/Time	TR: 12:30 – 1:45 PM
Location	Smith 513
Instructor	Dr. Ari Aluthge (Pronounced: A-luth-gay)
Office	Morrow Library, Room 109
Phone	(304) 696 3050
E-Mail	aluthge@marshall.edu (include your name and "MTH 122 – 204" in the subject line)
Office/Hours	Tuesday and Thursday: 2:00 PM to 5:00 PM or by appointment
University Policies	By enrolling in this course, you agree to the University Policies listed below. Please read the full text of each policy be going to www.marshall.edu/academic-affairs and clicking on "Marshall University Policies." Or, you can access the policies directly by going to http://www.marshall.edu/academic-affairs/?page_id=802 Academic Dishonesty/ Excused Absence Policy for Undergraduates/ Computing Services Acceptable Use/ Inclement Weather/ Dead Week/ Students with Disabilities/ Academic Forgiveness/ Academic Probation and Suspension/ Academic Rights and Responsibilities of Students/ Affirmative Action/ Sexual Harassment

Course Description: From Catalog

Polynomial, rational, exponential, and logarithmic functions. Graphs, equations and inequalities, sequences. PR: ACT Math 22 or SAT Math 520 or MTH 127 or MTH 130. *3 hours*

Course Objectives:

- To give students a solid understanding of trigonometric functions and their applications.
- To help prepare students for a course in calculus with analytic geometry. Students should also take college algebra before attempting calculus
- To help prepare students for study in areas such as physics, engineering, biology, chemistry, pharmacy, geology, medicine, and safety technology.

Course Contents: Most of the topics from chapters P through 6 in the textbook

- Right Triangular Ratios ●Trigonometric/Circular Functions
- Graphs of Trigonometric/Circular Functions ● Trigonometric Identities
- Inverse Trigonometric/Circular Functions and Trigonometric Equations
- Applications (Law of Sines, Law of Cosines, Vectors)
- Complex Numbers and Polar Coordinates (time permitting)

Learner Outcomes: The table below shows the following relationships: How each student learning outcomes will be practiced and assessed in the course. Upon completion of this course, students will have an understanding of the concepts of trigonometric functions and their properties. They will be able to apply these concepts to solve real world applications. In particular,

Course Student Learning Outcomes	**How students will practice each outcome in this Course**	**How student achievement of each outcome will be assessed in this Course**
Students will analyze, compare, evaluate, and graph the six trigonometric functions.	Students will attend class, work on worksheets and homework, participate in class discussions, and ask questions.	Daily worksheets, board work and class participation, weekly online quizzes, two exams, and the comprehensive final exam.
Students will analyze, compare, evaluate, and graph the six inverse trigonometric functions.	Students will attend class, work on worksheets and homework, participate in class discussions, and ask questions.	Daily worksheets, board work and class participation, weekly online quizzes, two exams, and the comprehensive final exam.
Students will use trigonometric functions to solve real-world applications involving triangles and vectors.	Students will attend class, work on worksheets and homework, participate in class discussions, and ask questions.	Daily worksheets, board work and class participation, weekly online quizzes, two exams, and the comprehensive final exam.
Students will use the definition of radian measure to solve application problems involving linear and angular speed.	Students will attend class, work on worksheets and homework, participate in class discussions, and ask questions.	Daily worksheets, board work and class participation, weekly online quizzes, two exams, and the comprehensive final exam.
Students will apply trigonometric identities and solve trigonometric equations in other mathematics courses such as calculus.	Students will attend class, work on worksheets and homework, participate in class discussions, and ask questions.	Daily worksheets, board work and class participation, weekly online quizzes, two exams, and the comprehensive final exam.
Students will apply trigonometric functions to multiply and divide complex numbers and find the powers and roots of complex numbers (time permitting).	Students will attend class, work on worksheets and homework, participate in class discussions, and ask questions.	Daily worksheets, board work and class participation, weekly online quizzes, two exams, and the comprehensive final exam.

Required Texts, Additional Reading, and Other Materials

1. Dugopoloski, Trigonometry, 4th edition. **ISBN:** 9780321923486
2. A scientific calculator is required and a graphing calculator is recommended
3. Reliable internet access. But students can use a campus computer lab to do their work.

Course Requirements / Due Dates

1. Weekly online quizzes completed outside class time. Schedule to be posted online.

2. Three tests on February 10, March 12, and April 21 during the class (75 minutes each).

3. Comprehensive final exam on Tuesday, May 5, 12:45 – 2:45 PM (2 hours), same classroom (Smith 513).

Grading Policy

1. Weekly online quizzes = 150 points
2. Three tests = 300 points total (100 points each)
3. Comprehensive final exam = 150 points

Total = 600 points

Letter Grades: A = 540 – 600, B = 480 – 539, C = 420 – 479, D = 360 – 419, F = 0 - 359

Attendance Policy

Students are expected to attend the class every day. Make-up exams will be given only for the absences approved by the dean of students. It is the student's responsibility to find out what was discussed in a missed class.

Tentative Weekly Schedule:

Week	Coverage of material and other assignments
Week #1 (1/12 – 1/16)	Sections 1.1 – 1.4
Week #2 (1/19– 1/23)	Sections 1.4 – 1.6
Week #3 (1/26 – 1/30)	Sections 2.1 – 2.2
Week #4 (2/2 – 2/6)	Sections 2.3 – 2.4
Week #5 (2/9 – 2/13)	Exam 1 on Tuesday, Finish Section 2.4 on Thursday (skip 2.5)
Week #6 (2/16 – 2/20)	Sections 3.1 – 3.3
Week #7 (2/23 – 2/27)	Sections 3.3 – 3.5
Week #8 (3/2 – 3/6)	Sections 4.1 – 4.2
Week #9 (3/9 – 3/13)	Finish Sections 4.2, Exam 2 on Thursday
Week #10 (3/16 – 3/20)	Spring Break – No classes
Week #11 (3/23 – 3/27)	Sections 4.3 – 4.4
Week #12 (3/30 – 4/3)	Sections 5.1 – 5.2
Week #13 (4/6 – 4/10)	Sections 5.3 – 5.4
Week #14 (4/13 – 4/17)	Sections 6.1 – 6.2
Week #15 (4/20 – 4/24)	Exam 3 on Tuesday, Sections 6.3
Week #16 (4/27 – 5/1)	Sections 6.4, Catch up and Review for the final exam
Week #17 (5/4 – 5/8)	Comprehensive final exam on Tuesday, May 5, 12:45 – 2:45 AM (2 hours), same classroom (Smith 513).

Class will be taught using PowerPoints which will be available on Blackboard (www.marshall.edu/muonline) for students to view before and after the class. Quizzes will also be on Blackboard. Students must log on to Blackboard on a daily basis. Students can contact the instructor using the "Internal Mail" tool on Blackboard.

Tentative Quiz Schedule:

Each quiz contains 10 questions from the material indicated sections and is 10 points worth. Students are allowed two attempts and the best attempt will count.

Quiz #	Sections covered	Open at 12:01 AM on	Close at 11:59 PM on
1	1.1, 1.2	January 16	February 1
2	1.3, 1.4	January 23	February 8
3	1.5, 1.6	January 30	February 15
4	2.1, 2.2	February 6	February 22
5	2.3, 2.4	February 13	March 1
6	3.1, 3.2	February 20	March 8
7	3.3, 3.4	February 27	March 15
8	3.5, 3.6	March 6	March 22
9	4.1	March 13	March 29
10	4.2, 4.3, 4.4	March 27	April 5
11	5.1	April 3	April 12
12	5.2	April 10	April 19
13	5.3	April 17	April 26
14	5.4	April 21	May 3
15	6.1, 6.2	April 21	May 3