Marshall University course Syllabus

Course Title/Number	MTH 122 – Plane Trigonometry – Sec 102– CRN 3199 – (3 credits)
Semester/Year	Fall 2014
Days/Time	TR: 12:30 – 1:45
Location	Smith 516
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 – 102" in the subject line)
Office/Hours	Monday and Wednesday: 1:00 PM to 4:00 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. Daily attendance.
2. Daily worksheets completed in class and at home after the class.
3. Daily board work and class participation.
4. Weekly online quizzes completed outside class time.
5. Two tests on October 7 and November 20 during the class (75 minutes).
6. Comprehensive final exam on Tuesday, December 9, 12:45 – 2:45 PM (2 hours), same classroom (Smith 516).

Grading Policy

1. Attendance = 50 points (2 points per day. Must be in the class for the whole period to earn full points)
2. Worksheets = 200 points
3. Boardwork and participation = 100 points
3. Weekly online quizzes = 150 points
4. Two tests = 300 points
5. Comprehensive final exam = 200 points
   Total = 1000 points
Letter Grades: A = 900 – 1000,   B = 800 – 899,   C = 700 – 799,   D = 600 – 699,   F = 0 - 599

Attendance Policy

Daily attendance is required will count towards the grade. Make-up exams will be given only for the absences approved by the dean of students. Students are expected to attend all scheduled classes. It is the student's responsibility to find out what was discussed in a missed class. Daily attendance will be taken.

Tentative Weekly Schedule:

Week	Coverage of material and other assignments
Week #1 (8/25 – 8/29)	Sections 1.1 – 1.3
Week #2 (9/1 – 9/5)	Sections 1.4 – 1.5
Week #3 (9/8 – 9/12)	Sections 1.6 – 2.1
Week #4 (9/15 – 9/19)	Sections 2.2 – 2.3
Week #5 (9/22 – 9/26)	Sections 2.4 – 2.5 (will skip 2.5 if we fall behind)
Week #6 (9/29 – 10/3)	Sections 3.1 – 3.2, Review for Test 1
Week #7 (10/6 – 10/10)	Tuesday: Test 1 on (on 1.1 – 3.1), Thursday: Sections 3.3
Week #8 (10/13 – 10/17)	Sections 3.4 – 3.6 (brief on 3.6)
Week #9 (10/20 – 10/24)	Sections 4.1 – 4.2
Week #10 (10/27 – 10/31)	Sections 4.3 – 4.4 (brief on 4.4)
Week #11 (11/3 – 11/7)	Sections 5.1 – 5.3
Week #12 (11/10 – 10/14)	Sections 5.4 – 6.1 (brief on 5.5)
Week #13 (11/17 – 11/21)	Tuesday: Sections 6.2 and review for Test 2, Thursday: Test 2 (3.2 – 6.1)
Week #14 (11/24 – 11/28)	Thanksgiving break – No classes
Week #15 (12/1 – 12/5)	Sections 6.3 – 6.5, Review for the final exam
Week #16 (12/8 – 12/12)	Final Exam on Tuesday, December 9, 12:45 – 2:45 PM in Smith 516

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.