MONTGOMERY COLLEGE
DEPARTMENT OF MATHEMATICS
ROCKVILLE CAMPUS
Trigonometry MATH098 CRN 23252
Fall 2017 (First Seven Weeks)

Professor: Dr. Fred Katiraie (**fred.katiraie@montgomerycollege.edu** **Office:** Science Center Room 354P
Classroom: Science Center Room 461 **Phone:** (240) 567-8060
Class Hours: Monday and Wednesday 2:00 PM to 2:55 PM
Office Hours: Tuesdays 1:30 to 2:00 PM, and 6:00 to 6:30 PM,
Thursdays 1:30 to 2:00 PM,
Fridays 12:00 noon to 12:30 PM

Optional Review Sessions for Math 096 Students: Thursdays 5:00—6:00 PM in Ackerman Learning Center (formerly Math Science Center) Room 109

Optional Review Sessions for Calculus I Students: Wednesdays 4:00—6:00 PM in Ackerman Learning Center (formerly Math Science Center) Room 109

Website: http://web4students.montgomerycollege.edu/facultyFTPSites/fkatira1/

Math Club Tutoring Hours in Science Center Room 362: Fridays 3:00 to 5:00 PM.

Prerequisite: Completion of Math 096 (099) or 103 or concurrent enrollment in Math096 or an appropriate score on the mathematics assessment test.

MATH 098 INTRO TO TRIGONOMETRY 1 semester hour MA-Mathematics
Course Description: An examination of right triangle trigonometry and applications. Topics include graphs and equations involving sine, cosine, tangent, and related basic concepts. PRE- or COREQUISITE: MA099 or MA 103, appropriate score on mathematics assessment test, or consent of department. Assessment level: RD 120. Fifteen hours each semester.

Course Description:
MATH 098 - INTRODUCTION TO TRIGONOMETRY
An examination of right triangle trigonometry and applications. Topics include graphs and equations involving sine, cosine, tangent, and related basic concepts. Usually scheduled to meet 5-7 weeks in the first half or second half of a semester. PRE- or COREQUISITE: MATH 096, appropriate score on mathematics assessment test, or consent of department. Assessment level: READ 120. Formerly MA 105. ONE EQUIVALENT CREDIT HOUR. NOT APPLICABLE TO A DEGREE OR CERTIFICATE. MAY NOT BE USED TO SATISFY DEGREE REQUIREMENTS.
1.000 Credit hours
1.000 Bill Hours

This course is designed to prepare students for Precalculus.
In order to keep costs down, the textbook does not come with an online homework system. Nevertheless, it is recommended that homework be counted five to ten percent of the grade. The department requires all math courses to assign homework.

Textbook:
http://web4students.montgomerycollege.edu/facultyFTPSites/fkatira1/TrigTextFinal%20July22Version%202017.pdf

Additional resources:
1) http://www.montgomerycollege.edu/~maronne/Math%20105.html
2) http://www.montgomerycollege.edu/~witte/WitteMA105ClassVideos.htm
4) http://www.montgomerycollege.edu/~witte/YagodichMA105ClassVideos.htm
5) http://www.purplemath.com/modules/index.htm
6) http://tutorial.math.lamar.edu/Extras/AlgebraTrigReview/AlgebraTrigIntro.aspx
7) https://www.khanacademy.org/math/trigonometry
8) http://www.stitz-zeager.com/szct07042013.pdf

Calculators: A graphing calculator is required. The TI-83, TI-83 plus, TI-84, TI-86, or TI-82 are recommended. Other calculators may be adequate, but the student cannot expect help from the instructor on the use of these calculators. (No symbol manipulation calculators, such as the TI-89 or TI-92, will be permitted on tests or quizzes.)

Homework Binder: There are some bad work habits which may hinder one's performance in a course such as this one. As an example, sloppy handwriting often causes careless mistakes that lead to unnecessary confusion and lack of confidence in one's work. In order to ensure that your work for this course is organized, you will be required to have a 3-ring binder (or a folder of your choice) which contains separate sections for:

- Homework assignments
- Quizzes, tests and handouts (such as syllabus)
- Class notes (unless you prefer to keep these in a separate notebook).

The homework assignments should be written neatly and should include only the relevant calculations, not messy scratch work. You should also include the statement of each problem. (For word problems, you can briefly summarize the statement using symbols, if necessary) Keep the various components of the binder file in separate sections (Do not mix your quizzes in with your homework) I will periodically look at your binder and may grade selected problems. (I especially will be interested in seeing your binder when you are not performing well on quizzes and tests.)

Grading Policy: There will be 5 quizzes, and the lowest 2 quiz grades could be dropped. We will also have 2 exams (a midterm and a final). You obtain a zero for every exam that you miss, and **NO MAKE UPS** will be given.

The following applies to students who miss at most 3 classes in the semester

If you do better on the final exam than on your worst test, this test grade will be replaced by your final exam grade

Your final grade will be based on the following:

Quizzes	10%
Midterm Exam	35%
Final Exam	45%
Homework	10%

How Homework is Graded

On each homework set, several problems or parts of problems will be graded.

Excellent Attendance & Participation	Drops One Lowest Quiz
Attendance (Visit with Tutors) in Math Science Center	Drops One Lowest Quiz

Grading Scale

90% and Up = A
80% – 89.9% = B
70% - 79.9% = C
60% – 69.9% = D
59.9% and Below = F

Attendance: Any student who misses the equivalent of more than two classes may be dropped from the class.

Notes: All work must be shown on both homework and tests. If the work is incorrect or missing, no credit will be given. Homework with no work shown is not considered to be done.
If class is not held on the date of a scheduled test, the test will be given the next time class meets. Any other changes in schedule will be announced.

The administration has requested that the following be included in the course policy:

Classroom Behavior:
Each and every student is expected to behave in ways which promote a teaching and learning atmosphere. Students have the right to learn; however, they do not have the right to interfere with the freedom of the faculty to teach or the rights of other students to learn. Students will be treated respectfully in return for respectful behavior.

All in-class discussions should be carried out in a way that keeps the classroom environment respectful of the rights of others. This means that , for example, students should not interrupt someone else who is talking regardless of whether that person is the instructor or another student. Students should not monopolize class time by repeatedly interrupting and asking questions in a manner which hinders the learning process of others. Students are also expected to conduct themselves in ways which create a safe learning and teaching environment that is free from such things as violence, intimidation, and harassment.

Please make sure that you obtain and read a copy of the current Student Handbook which contains the Student Code of Conduct.

Disability Support: Any student who may need an accommodation due to a disability, please make an appointment to see me. A letter from Disability Support Services authorizing your accommodations will be needed. The Disability Support Services office is located in CAB 122.

Academic Honesty
Each student, as an active participant in the Montgomery College community, is responsible for performing academic work that holds to the highest standards of honesty. Acts of cheating, including helping others to cheat, are forms of academic dishonesty. Acts of academic dishonesty could result in a disciplinary action that may include, but is not limited to suspension or dismissal. Consult the Student Code of Conduct in the Student Handbook for further information.

- Communication between students during a test or quiz. This includes both oral communication and the passing of objects, such as a calculator or notes. In particular, you cannot borrow a pencil during a test. Come prepared. Any student whispering during a test or quiz will be suspected of cheating.

- Any behavior which interferes with the ability of other students to learn.

Promptness
Class will start and end on time with rare exceptions. Please be prompt.

Behavior only appropriate in an emergency.
- Use of cell phones or audible pagers. **Any student using a cell phone during a test will receive a zero on the test.** (Of course an exception will be made if the student is reporting a fire, crime, or medical emergency.)

Course content and objectives:

Note: Problem #22 on the final exam review does not have any corresponding problems in the textbook. In order to study for this type of problem, the following problems may be included in section 7.1.

Use the definition of $\sin\theta = \frac{y}{r}$, $\cos\theta = \frac{x}{r}$, $\tan\theta = \frac{y}{x}$, $\csc\theta = \frac{r}{y}$, $\sec\theta = \frac{r}{x}$, and $\cot\theta = \frac{x}{y}$ to prove the identities.

1. $\csc\theta = \frac{1}{\sin\theta}$ 2. $\sec^2\theta - 1 = \tan^2\theta$ 3. $\cos\theta\tan\theta\csc\theta = 1$

Alternatively, the students could be told to skip the problem.

Montgomery College
MATH098 Course Outcomes

#	*Outcome: Upon completion of this course/program a student will be able to:*
1	Solve right-triangle trigonometric problems, including word problems.
2	Solve simple trigonometric equations.
3	Graph y = $A\sin(x)$, y = $A\cos(x)$ and y = $\tan(x)$ without a calculator.
4	Evaluate the 6 trigonometric functions without a calculator for a. the angles of a right triangle b. an angle in standard position defined by a point in the plane. c. quadrantal angles. d. special angles: 30°, 45°, and 60° as well as those angles whose reference angles are 30°, 45°, 60°.
5	Evaluate the 6 trigonometric functions for any angle in degrees or radians with a calculator.
6	Define degrees and radians. a. Convert between degrees and radians b. Locate angles (in radians) on a unit circle.
7	Sketch an angle in standard position a. Find and use reference angles. b. Find and understand coterminal angles.
8	Use basic identities to simplify expressions involving trigonometric functions.

Tentative Schedule

Quiz Dates are marked asterisk (*)

NO.	DATE	Section	HOMEWORK ASSIGNMENTS
1	August 28th	1.1 1.2	HW Number 1
2*	**August 30th**	**Review and Quiz 1**	
3	September 6th	1.2	HW Number 1
4	September 11th	1.3	HW Number 2
5*	**September 13th**	**Review and Quiz 2**	
6	September 18th	2.1	HW Number 3
7	September 20th	Review for Midterm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12
8*	**September 25th**	**Midterm Exam**	
9	September 27th	3.1	HW Number 4
10	**October 2nd**	4.1	HW Number 5 **Review and Quiz 3**
11	October 4th	4.2 Reference Angles	HW Number 6 HW Number 7
12*	**October 9th**	5.1 5.2	HW Number 8 HW Number 9 **Quiz 4**
13	October 11th	Review for Final	
14*	**October 16th**	**Final Exam**	