SYLLABUS FOR "[FALL/SPRING]" SEMESTER, 201x

Course Title:	Trigonometry	Instructor:	"[Instructor Name]"
Credit Hours:	3	Office:	"[Office Location]"
Course Number:	MATH 1330-00x	Hours:	"[Office Hours]"
Location and Time	"[Location and Time]"	email:	"[e-mail address]

TEXTBOOK
Precalculus, First Edition, Julie Miller and Donna Gerken, McGraw-Hill 2017

To purchase the textbook and ALEKS access: ISBN 9781260142433

To purchase ALEKS access which includes an ebook: ISBN 9781259723322

Access to a PC or Mac connected to the web and on which you have privileges to install browser plug-ins. (for ALEKS, above)

AFTER YOU PURCHASE THE TEXTBOOK WITH ALEKS OR ALEKS WITH THE EBOOK
Register for ALEKS at https://www.aleks.com/sign_up. Enter the following 10-character course code xxxxx-xxxxx and click Continue.

Verify your Course, Section Number, and Meeting Time listed after Course. Verify your Instructor and School. Then click Continue.

Answer whether you already have an ALEKS login name or are new to ALEKS.

Enter the 20-character access code which came with your textbook or the access code which you purchased.

You will need to complete the ALEKS Skills Test before you will be able to work on the Path Problems and the Homework Problems in ALEKS.

CALCULATOR
You **will need to own or have access to a scientific calculator that has the trigonometric function keys. A graphing calculator is helpful, but not required. Cell phones, smart phones, and graphing calculators are not allowed during quizzes and exams.**

CATALOG DESCRIPTION
This course will cover the definitions and graphs of trigonometric functions and their inverses, solving trigonometric equations, applications and topics in analytic geometry.

PREREQUISITES
The prerequisite for this course is a grade of C- in College Algebra (MATH-1320).

Please announce the prerequisite during the first class or two. Students who do not satisfy the prerequisites should see their advisors. Remove this before posting your syllabus.

NOTE: No prior knowledge of trigonometry is to be assumed.
No credit if MATH1340 is passed.

LEARNING OBJECTIVES

The objective of this course is to develop your mathematical skills, with emphasis on problems requiring the use of trigonometric functions. A more detailed list of learning objectives is given below. At least 70% of the course time will be devoted to these essential outcomes. These objectives are listed again in the chronological list of topics at the end of this syllabus.

- ***Representation***: Graphical, algebraic, numerical, and verbal representation of trigonometric and inverse trigonometric functions verbally, numerically, graphically and algebraically.
- ***Definitions***: Define the six trigonometric functions in terms of right triangles and the unit circle.
- ***Graphs***: Determine whether a trigonometric relation or given graph represents a function; perform transformations on graphs and operations with functions; determine intercepts, domain, range, intervals of monotonicity, vertex of a quadratic, asymptotes, symmetry; and match graphs to trigonometric definitions.
- ***Modeling***: Use trigonometric and inverse functions to model a variety of real-world problem-solving applications.
- ***Equations***: Solve a variety of trigonometric and inverse trigonometric equations, in degrees and radians for both special and non-special angles; solve application problems that involve such equations.
- ***Angles/Triangles***: Express angles in both degree and radian measure. Solve right and oblique triangles in degrees and radians for both special and non-special angles, and solve application problems that involve right and oblique triangles.
- ***Identities***: Verify trigonometric identities by algebraically manipulating trigonometric expressions using fundamental trigonometric identities, including the Pythagorean, sum and difference of angles, double-angle and half-angle identities.
- ***Vectors***: Represent vectors graphically in both rectangular and polar coordinates and understand the conceptual and notational difference between a vector and a point in the plane; perform basic vector operations both graphically and algebraically; solve application problems using vectors.

RESOURCES

Students should be made aware of the tutoring help the University provides. Mathematics tutoring is provided by the Mathematics Learning and Resource Center that is located in the basement of Carlson Library - phone ext. 2176. It operates on a walk-in basis. The LEC Tutoring Hours can be found at http://math.utoledo.edu/mlrc/MLRC.pdf.

ASSESSMENT OF STUDENT LEARNING

Assessment will **be based on a combination of homework, quizzes, midterms and a final exam. You will need to demonstrate the ability to apply mathematical reasoning and skills to solve problems in all the outcome areas listed above using correct mathematical notation.**

EVALUATION

The evaluation for this course will be based upon a percentage of the total of homework, test and final exam scores:

1. Quizzes and homework (Insert min percent) to (Insert max percent)%
2. Midterms (Insert min percent) to (Insert max percent)%
3. Final Exam (comprehensive) (Insert min percent) to (Insert max percent)**%**
4. **Total 100%**

Grades are **based on the following percentages of total points:**

100% - 90% A
89% - 80% B
79% - 70% C
69% - 60% D
Below 60% F

Pluses and minuses will be used using the policy of the University.

RESPONSIBILITIES OF THE STUDENT

You **are expected to attend each class session. If you attend class, it is assumed that you will participate actively by asking questions and participating in discussions. You are expected to prepare for class, to have read the indicated sections prior to the class session and have your homework completed by the indicated date. This is a three credit hour course and you should expect to spend 5 to 8 hours outside of class readying. Studying and doing homework problems. The syllabus schedule indicates the order in which the sections will be discussed. If you must miss a class, it is your responsibility to find out what you missed including any announcements which were made.**

IMPORTANT DATES

*The instructor reserves the right to change the content of the course material if he perceives a need due to postponement of class caused by inclement weather, instructor illness, etc., or due to the pace of the course.

MIDTERM EXAM(S):

FINAL EXAM:

OTHER DATES

The last day to drop this course is: _____
The last day to withdraw with a grade of "W" from this course is:_____

MISSED CLASS POLICY

If circumstances occur in accordance with "The University of Toledo Missed Class Policy" (found at http://www.math.utoledo.edu/missed_class_policy.html) result in a student missing a quiz, test, exam or other graded item, the student must contact the instructor in advance by phone, e-mail or in person, provide official documentation to back up his or her absence, and arrange to make up the missed item as soon as possible.

ACADEMIC DISHONESTY

Any act of academic dishonesty as defined by the University of Toledo policy on academic dishonesty (found at http://www.utoledo.edu/dl/students/dishonesty.html) will result in an F in the course or an F on the item in question, subject to the determination of the instructor.

NON-DISCRIMINATION POLICY

The University of Toledo is committed to a policy of equal opportunity in education, affirms the values and goals of diversity.

STUDENTS WITH DISABILITIES

The University will make reasonable academic accommodations for students with documented disabilities. Students should contact the Student Disability Services (Rocket Hall 1820; 419.530.4981; studentdisabilitysvs@utoledo.edu) as soon as possible for more information and/or to initiate the process for accessing academic accommodations. For the full policy see:
http://www.utoledo.edu/offices/student-disability-services/

STUDENT PRIVACY

Federal law and university policy prohibits instructors from discussing a student's grades or class performance with anyone outside of university faculty/staff without the student's written and signed consent. This includes parents and spouses. For details, see the "Confidentiality of student records (FERPA)" section of the University Policy Page at http://www.utoledo.edu/policies/academic/undergraduate/index.html

TOPICS TO BE COVERED:

Topic	Book Section	Learning Objective	Hours
Radian and Degree Measure	4.1	Angles	1
The Six Trigonometric Functions in Terms of a Right Triangle	4.3	Triangles, Modeling	2
Applications Involving Right Triangles	6.1	Modeling	2
Definition of the Six Trigonometric Functions Using the Unit Circle	4.2	Definitions	2
Reference Angles	4.4	Definitions	2
Coterminal Angles	4.1, 4.4	Definitions	2
The Graphs of the Trigonometric Functions	4.5, 4.6	Graphs	3
The Inverse Trigonometric Functions	4.7	Definitions, Modeling	3
The Graphs of the Inverse Trigonometric Functions	4.7	Graphs	2
Fundamental Trigonometric Identities	4.2, 4.3, 4.4, 5.1	Identities	2
Pythagorean Identities	4.2, 4.4	Identities	2
Solving Trigonometric Equations	5.5	Equations, Modeling	3
Sum and Difference Formulas	5.2	Identities	2
Double-Angle Formulas	5.3	Identities	2
Half-Angle Formulas	5.3	Identities	2
The Law of Sines	6.2	Identities, Modeling	2
The Law of Cosines	6.3	Identities, Modeling	2
Vectors	7.4	Vectors, Modeling	4
		Total Hours:	40

3-4 hours (depending on holidays) for review, quizzes, and midterms