

SYLLABUS MATH 1316 Trigonometry  
Fall 2015

**MATH 1316-010 8:00-8:50 MWF**  
**Math 1316-040 8:00-9:15 TR**

**Instructor:** Dr. John Gresham

**Office Phone:** 968-1954

**Math Office Phone:** 968-9168

**Web site:** <http://faculty.tarleton.edu/jgresham>

**Office:** Math 131

**e-mail:** [jgresham@tarleton.edu](mailto:jgresham@tarleton.edu)

**Office Hours:** 1-2 MTWRF

**Catalog Description:** Angles and coordinates, trigonometric functions, solutions of triangles and applications, reduction theorems and formulas, identities and conditional equations, addition formulas and derived relations, angular and linear speed, logarithms, and radian measure. Prerequisite: MATH 1314 or concurrent registration.

**Textbook & Materials:** Choose one of the following options

- My MathLab e-book, *Trigonometry, 10th edition*, by Lial, Hornsby & Schneider
- *Trigonometry, 10th edition*, by Lial, Hornsby & Schneider **with MyMathLab**
- Purchase a registration code online at [www.pearsonmylab.com](http://www.pearsonmylab.com). Once registered you can use the course ID to access your assignments, ebook, and other resources. You may purchase a hard copy separately, if you wish.

<b>MATH 1316 -010 8:00-8:50 MWF</b>	<b>gresham50351</b>
<b>Math 1316-040 8:00-9:15 TR</b>	<b>gresham00124</b>

You are strongly advised to use your Tarleton email account as your email address when you register in MML. See the University policy below.

**Student Learning Outcomes (from Texas Academic Course Guide Manual):**

**Upon successful completion of this course, students will:**

- Compute the values of trigonometric functions for key angles in all quadrants of the unit circle measured in both degrees and radians.
- Graph trigonometric functions and their transformations.
- Prove trigonometric identities.
- Solve trigonometric equations.
- Solve right and oblique triangles.
- Use the concepts of trigonometry to solve applications.

**Major Tests:** We will have three (3) chapter exams during the semester and a comprehensive final at the end of the semester.

**Grading System:**

3 Major Exams	45%
Class worksheets/quizzes	15%
Online homework	20%
Comprehensive Final	20%

**Grading Scale:** 90 – 100 A      80 – 89 B      70 – 79 C      60 – 69 D      0 – 59 F

**MML Homework:** On-line homework will be assigned with each topic covered; you will have at least two days to complete each assignment. Failure to complete the assignment on time will result in a grade of 0 for that assignment. A few of these grades may be dropped at the end of the term.

**Worksheets/quizzes:** Worksheets may be given in class as part of the class learning activities. Or a short class quiz may be given over the material covered. A few of these grades may be dropped at the end of the term.

**Makeup Policy:** Students may request make-up consideration for valid and documented reasons such as illness, death in the immediate family, legal proceedings, or participation in University-sponsored activities. In the event that you are absent other than for

reasons outlined above, you will receive a grade of 0. The final exam score may replace **one** low major exam grade, provided that the score on the final is better than the low or missed exam.

**University Email Policy:** Your university email address is now the official means of electronic mail communication. Personal email addresses will no longer be used to contact students. According to Tarleton State University's Email Communication Guidelines, "official communications will be sent to the recipients' official University email address. Students are expected to check their email on a frequent and consistent basis ..." If you have not claimed your Tarleton email account, please contact the Computer Helpdesk at (254) 968-9885 as soon as possible.

**University Policy:** Students are responsible for knowing and abiding by the policies and information contained in the Tarleton Student Handbook. [See the TSU Student Handbook]

**Student Responsibilities:** The student is *solely* responsible for:

- Completing each assignment by the specified due date.
- Obtaining assignments and other materials for classes from which they are absent.
- Utilizing, as needed, all available study-aid options (including meeting with the instructor, referring to outside texts, etc.) to resolve any questions that they might have regarding homework, course material, and/or projects.
- Giving as much of an effort as it takes to pass this course.

**Academic Conduct:** Any student guilty of academic dishonesty, cheating, or plagiarism in academic work shall be subject to disciplinary action. [TSUSH] The instructor may initiate disciplinary action in any case of academic misconduct. In the case of cheating on an exam, a grade of zero shall be assigned to the exam, and this score may not be replaced by the final exam score in calculating the semester average.

**Services for Students with Disabilities:** It is the policy of Tarleton State University to comply with the Americans with Disabilities Act and other applicable laws. If you are a student with a disability seeking accommodations for this course, please contact the Center for Access and Academic Testing, at 254.968.9400 or [caat@tarleton.edu](mailto:caat@tarleton.edu). The office is located in Math 201. More information can be found at [www.tarleton.edu/caat](http://www.tarleton.edu/caat) or in the University Catalog.

**Attendance Policy:** Regular and punctual class attendance is expected of all students. If excessive absences prevent satisfactory progress, a recommendation for withdrawal from the course may be made.

**Cell phones:** Students are expected to set their cell phone so as to emit no audible noise in the classroom. Except for emergency situations, cell phone use (including texting) during the class period is prohibited. A student who is noticeably (to the instructor) distracted by his/her cell phone and/or distracting others with it may be asked to immediately disable it or to leave the classroom. To compensate for your electronic deprivation, keep your calculator on.

**Calculator Policy:** Each student will be required to have an approved graphing calculator available for use. The TI-84 is my recommended choice, but other TI models (TI-*n*spire [non CAS], TI-83, TI-83+, TI-86, etc.) or other brands are acceptable. I will use primarily the TI-84 in the classroom. Students using other brands are responsible for learning how to operate their calculators. The instructor reserves the right to prohibit the use of calculators on certain assignments or tests. Any calculators that are equipped with computer/symbolic algebra systems (like the TI-89, TI-92, or the HP 4800 series calculators) are not acceptable. A limited number of calculators are available for rent from the Math Club. Students should see the Math Office (MATH 142) for more information.

#### **Study Aids:**

- The Mathematics Clinic offers to all students enrolled in remedial and freshman-level mathematics courses an opportunity to obtain free tutoring. The Math Clinic is located in room 203. Its hours are posted on the door.
- The university offers several programs through which students may obtain free or reduced-fee private tutoring. Interested students should visit Student Success Services for more details.
- The department maintains a list of students that are interested in tutoring privately, which may be accessed via the department's web page.

#### **Notes:**

- In the event that the university is closed for a scheduled class time, whatever was scheduled for that day and/or whatever was due that day will be scheduled and/or due on the next scheduled class time. University closure and emergency information is sent to all students, faculty, and staff through Code Purple. All students are automatically enrolled in Code Purple through their Tarleton email address. See <http://www.tarleton.edu/codepurple> for more information
- **All items contained in this syllabus are subject to change as the semester progresses. Students will be notified of any changes.**

Math 1316 Calendar (Subject To Change)

Week	Section
1	1.3 Trigonometric Functions
	1.4 Using the Definitions of the Trigonometric Functions
2	2.1 Trigonometric Functions of Acute Angles
	2.2 Trigonometric Functions of Non-Acute Angles
	2.3 Finding Trigonometric Function Values Using a Calculator
3	2.4 Solving Right Triangles
	2.5 Further Applications of Right Triangles
4	3.1 Radian Measure
	<b>Test 1</b> Chapters 1, 2
5	3.2 Applications of Radian Measure
	3.3 The Unit Circle and Circular Functions
	3.4 Linear and Angular Speed
6	4.1 Graphs of the Sine and Cosine Functions
	4.2 Translations of the Graphs of the Sine and Cosine Functions
7	4.3 Graphs of the Tangent and Cotangent Functions
	4.4 Graphs of the Secant and Cosecant Functions
8	<b>Test 2</b> chapters 3, 4
	5.1 Fundamental Identities
	5.2 Verifying Trigonometric Identities
9	5.3 Sum and Difference Identities for Cosine
	5.4 Sum and Difference Identities for Sine and Tangent
10	5.5 Double-Angle Identities
	5.6 Half-Angle Identities
	6.1 Inverse Circular Functions
11	6.2 Trigonometric Equations I
	6.3 Trigonometric Equations II
	6.4 Equations Involving Inverse Trigonometric Functions
12	7.1 Oblique Triangles and the Law of Sines
	<b>Test 3</b> chapters 5, 6
13	7.2 The Ambiguous Case of the Law of Sines
	7.3 The Law of Cosines
14	7.4 Vectors, Operations, and the Dot Product
	7.5 Applications of Vectors
15	Review for Final (restricted activities period begins)

Final Exam -- see the University Academic Calendar for the exam time for your section

<http://catalog.tarleton.edu/undergrad/universitycalendarsandfinalexaminationschedules/>