Instructor Information
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Division Office and Phone: Science, Mathematics, and Engineering. Room K224. 972-860-4750

Course Information
Course Title: Trigonometry
Course Number: MATH 1316
Section Number: 22401
Semester/Year: Spring 2020
Credit Hours: 3
Class Meeting Time/Location: INET
Certification Date: March 24, 2020

Last Day to Withdraw: May 1, 2020. A student is responsible for withdrawing from a course. Please talk to your Instructor, Advisor, Veteran’s Affairs Official and Financial Aid Official, as appropriate, before making the decision to withdraw from any course.

Course Prerequisites
Prerequisite Required College level ready in Mathematics at the non-algebra or algebra levels.

Course Description
Course Description: In depth study and applications of trigonometry including definitions, identities, inverse functions, solutions of equations, graphing, and solving triangles. Additional topics such as vectors, polar coordinates, and parametric equations may be included. (3 Lec.)
**Student Learning Outcomes**

Upon successful completion of this course, students will:

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

**Texas Core Objectives**

The College defines essential knowledge and skills that students need to develop during their college experience. These general education competencies parallel the Texas Core Objectives for Student Learning. In this course, the activities you engage in will give you the opportunity to practice two or more of the following core competencies:

1. **Critical Thinking Skills** - to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information
2. **Communication Skills** - to include effective development, interpretation, and expression of ideas through written, oral, and visual communication
3. **Empirical and Quantitative Skills** - to include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions
4. **Teamwork** - to include the ability to consider different points of view and to work effectively with others to support a shared purpose or goal
5. **Personal Responsibility** - to include the ability to connect choices, actions, and consequences to ethical decision-making
6. **Social Responsibility** - to include intercultural competence, knowledge of civic responsibility, and the ability to engage effectively in regional, national, and global communities

**Institutional Policies**

Institutional Policies relating to this course can be accessed using the link below. These policies include information about tutoring, Disabilities Services, class drop and repeat options, Title IX, and more.

[Brookhaven Institutional Policies](#)
Required Course Materials


ISBN 9780134306025

This course will run using interactive software called MyMathLab. MyMathLab is an online, textbook-based software where you will complete assignments. Students must have access to a computer with Internet to complete the required work for this course. Standard plug-ins are needed to access this tool. To access MyMathLab click the following link: MyMathLab.

To enroll into your MyMathLab course you will need a course ID which will be given to you by your instructor. You can request temporary access but will only have access from the first day of the semester through day 14. After this point, you must enter a valid MyMathLab student access code. If the access code is not entered by that day, access to all online assignments will be suspended. Students should have permanent access to MyMathLab by the end of the first test.

If you purchase your MyMathLab code online you MAY have the option of purchasing a 10 or an 18 week subscription. You MUST purchase the 18 week subscription so that you will have access to your assignments for the entire 16 week semester.

Note: A student of this institution is not under any obligation to purchase a textbook from a university-affiliated bookstore. The same textbook may also be available from an independent retailer, including an online retailer.

Calculator: You will be allowed to use a calculator on all homework assignments and the Final Exam. You may use any calculator with the exception of the TI-NSpire, TI-89 or TI-92. The software used for the course has a built in calculator, expression editor and grapher, however, you will want your own calculator so that you can use it for future courses. You will also want to use a ruler, pencil and graph paper.

Hardware and Software Requirments for My Math Lab

Operating Systems and Browsers: To work successfully with MyMathLab, your computer must match one of the supported browser and operating system (OS) configurations. Most MyMathLab courses support either Windows® or Macintosh® operating systems and a supported version of Microsoft Internet Explorer®, Firefox®, or Safari®. Other requirements vary, depending on the textbook in use for the course. Note that these requirements are only for MyMathLab itself. Players or plug-ins may have their own system requirements.
**Browser Settings:** Pop-up windows must be allowed. If you are using a browser that offers pop-up control or are running an add-on program to control pop-ups, you may need to take steps to allow pop-ups in order to use some features on the site. Session cookies must be enabled. In most browsers, you can enable cookies for selected domains. JavaScript must be enabled.

**Players and Plug-Ins:** The Browser Check utility will tell you whether or not the necessary players and plug-ins are present on your computer and, when they are present, whether they are up to date. It will also allow you to download the latest versions of the players and plug-ins. (Note that in some courses, the Browser Check may be referred to as the Installation Wizard. Clicking the "Installation Wizard" link will open the Browser Check.)

It's best to run the Browser Check or Installation Wizard from inside your MyMathLab course. When you sign into your course, you will see a Browser Check or Installation Wizard link on the Announcements page. You may need to restart your computer when you finish the download and installation.

If you experience technical problems while using MyMathLab, you may contact Technical Support at 1-800-677-6337, Monday – Friday 6am – 7pm CDT and Sunday 3pm – 10pm. For your convenience, visit Pearson 24/7 website for technical assistance, 24 hours a day, 7 days a week at Pearson Technical Support.

**Course Procedures and Policies**

**CONTACTING YOUR INSTRUCTOR:** Please make sure that you have updated your email address in eConnect and MyMathLab. I will periodically send out group emails to the class and will use one of these systems. Your main communication with your instructor will be via email. To ensure that you receive a prompt response, **when emailing your instructor, please be sure to include your name somewhere in the body of the email, and write the course for which you are enrolled** (MATH 1316) and **the section number** (23289) in the subject line of all email correspondences. I should respond to your email within 24 hours Monday through Friday. If I don’t respond to your email within 24 hours (Monday – Friday) then please resend your email. Emails sent Friday after 5:00pm - Sunday will be answered by Monday of the following week.

**ATTENDANCE/PARTICIPATION:** You will NOT be certified as attending class if you have not enrolled into MyMathLab and completed All of Chapter 1 assignments, by Monday, January 27th at 11:59 pm. If you are unable to purchase the MML access code due to financial aid you may request a temporary code when you first log in. The code will allow you access for approximately 2 weeks, you will then be required to purchase the code to continue.
GOING TO CLASS: Viewing Lessons and Completing Assignments

The class will work in the following way.

Click on ASSIGNMENTS tab and then Show All. This will show you all the assignments and the due dates for the entire course. There are 6 types of assignments listed.

1. Video Assignments – Graded: These contain short videos with examples that you will work. This is your lecture for the section. You need to spend time watching the videos, reading the text/PowerPoint and taking notes. You may also access this materials under the multimedia tab.

2. Homework Assignments – Graded: You may work each problem as many times as you wish. You may also utilize the “Question Help” button in the upper right corner. I highly recommend that you achieve a score of 80% or better on each homework assignment before you move on to the next assignment. Achieving this score will ensure that you have mastered enough of the material to understand and do well on the next section. Once the due date has passed you will no longer be able to change your grade. You may still access the assignment by going into your “Gradebook” and clicking the “review” tab next to the assignment you want to review.

3. Quizzes – Graded: The Quizzes are designed to give you an idea as to how you will perform on the actual tests. If you take the Quiz and fail, you can expect to fail on the actual test, unless you do additional work. You may take each quiz twice prior to the deadline. After you take the quiz the first time review it to see what you need to study before taking it the second time. The highest grade of the two attempts will be used to calculate your quiz average. You have 45 minutes to complete each quiz. You may “review” your quiz the same way you review your homework assignments.

4. Minute Quizzes – Graded: Minute quizzes are quick quizzes to test you knowledge of the values of basic trinonemetric functions such as sin 30°. When you proceed to your calculus courses you are expected to know the exact values of these functions without the aid of a calculator. There will be 12 of these quizzes through the course. The first one is in chapter 2. Each of these quizzes have 5-6 problems, they are multiple choice, and you will have 2 minutes to complete the quiz. Each of these quizzes may only be taken once. The grade on these minute quizzes will count as part of your overall quiz average, but they are not weighted as much as the chapter quiz grades.

5. Test Reviews – Not graded: You may take the practice test only once. It will give you an indication as to how well you are prepared to take the actual test. After taking the practice test you may review the test and study any topic that you didn’t get correct. You may access the “Test Reviews” after the due date since these are not graded assignments.

6. Test – Graded: You may only take the test one time. All tests are password protected; you will be given the passwords in class. You have 90 minutes to take your test in one attempt. You are not allowed to get in and out of your test while you are taking the test. If you attempt to open up other windows or other browsers while taking the test, you will be locked out of the test. If you do have technical difficulty while taking a test, take a snapshot of the screen (CNTL PrintScrn) and send it to me via email along
with the day/time that you were locked out. I will “enable access for you” so that you may go back in and complete the test provided proof of a technical problem. You can review your submitted test any time after submitting your test.

7. Final Exam – Graded: Same as taking a regular test. The final exam is a 25 question, multiple choice comprehensive final exam and you have 120 minutes to take your final exam in one sitting.

8. Any assignment not completed on or before the posted Due Date will be given the grade of 0.

9. I will give extensions to deadlines if the student request an extension prior to the due date. An extension should only be requested when a student has events, beyond their control, that prevents the student from completing their assignments on time. I reserve the right to deny the request if the student starts to abuse this privilege or starts to fall too far behind in class.

Graded Work
The tables below provide a summary of the graded work in this course and an explanation of how your final course grade will be calculated.

Summary of Graded Work

<table>
<thead>
<tr>
<th>Assignments</th>
<th>Points</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>MyMathLab Homework</td>
<td>69 assignments worth 100 points each</td>
<td>15%</td>
</tr>
<tr>
<td>MyMathLab Quizzes</td>
<td>21 quizzes worth 100 points each</td>
<td>10%</td>
</tr>
<tr>
<td>Tests</td>
<td>4 tests worth 100 points each</td>
<td>60%</td>
</tr>
<tr>
<td>Final Exam</td>
<td>1 final worth 100 points</td>
<td>15%</td>
</tr>
</tbody>
</table>

TOTAL: 100%

Final Grade

<table>
<thead>
<tr>
<th>Points</th>
<th>Percentages</th>
<th>Letter Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>90-100</td>
<td>90-100%</td>
<td>A</td>
</tr>
<tr>
<td>80-89</td>
<td>80-89%</td>
<td>B</td>
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<tr>
<td>70-79</td>
<td>70-79%</td>
<td>C</td>
</tr>
<tr>
<td>60-69</td>
<td>60-69%</td>
<td>D</td>
</tr>
<tr>
<td>0-59</td>
<td>0-59%</td>
<td>F</td>
</tr>
</tbody>
</table>
Buy MyMathLab and get all plug-ins set up by running the Browser Check on the course “Home Page”.

Yes; You May Work Any HW, Quiz or Test Prior to the Deadline! It would be very beneficial to complete all HW and Quizzes a couple of days prior to the test so that you may review for the test.

<table>
<thead>
<tr>
<th>Assignments in MyMathLab</th>
<th>Notes &amp; Due Dates</th>
</tr>
</thead>
</table>
| **Chapter 1 Trigonometric Functions**  
  1.1 Angles  
  1.2 Angle Relationships and Similar Triangles  
  1.3 Trigonometric Functions  
  1.4 Using Definitions of Trigonometric Functions  
  *Chapter 1 Quiz* | Read “Quiz Tips” posted in the Announcements on the course Home Page before starting the Quiz  
  *Due Sunday, March 29th @ 11:59pm* |
| **Chapter 2 Acute and Right Triangles**  
  2.1 Trigonometric Functions of Acute Angles  
  2.2 Trigonometric Functions of Non-Acute Angles  
  2.3 Finding Trigonometric Function Values Using a Calculator  
  2.4 Solving Right Triangles  
  2.5 Further Applications of Right Triangles  
  *Minute Quiz #1*  
  *Chapter 2 Quiz* | Minute Quizzes are 5-6 questions long and multiple choice. They are intended to help you with the memory work that you will need to be successful in Trig and future classes. For example, you may be asked what is the sin 90°? You have 2 minutes to complete the quiz and you may not retake them.  
  *Due Sunday, April 5th @ 11:59pm* |
| **TEST #1 Chapters 1-2** | Read “Test Taking Tips” posted in the Announcements on the course Home Page before starting the Test  
  *Due Monday, April 6th @ 11:59pm.* |
| **Chapter 3 Radian Measure and the Unit Circle**  
  3.1 Radian Measure  
  3.2 Applications of Radian Measure  
  3.3 The Unit Circle and Circular Functions  
  *Minute Quiz #2*  
  3.4 Linear and Angular Speed  
  *Minute Quiz #3*  
  *Chapter 3 Quiz* | Several of the HW problems in Chapter 3 have interactive figures, if you cannot open the figure you are missing a plug-in. Run the Browser Check or Call tech support (don’t e-mail or chat). It will really help you to understand the graphs of the trig functions if you graph them by hand using graph paper.  
  *Due Sunday, April 12th @ 11:59pm* |
| **Chapter 4 Graphs of the Circular Functions**  
  4.1 Graphs of the Sine and Cosine Functions  
  4.2 Translations of the graphs of the Sine and Cosine Functions  
  *Minute Quiz #4*  
  4.3 Graphs of the Tangent and Cotangent Functions  
  4.4 Graphs of the Secant and Cosecant Functions  
  *Minute Quiz #5*  
  *Chapter 4 Quiz* | *Due Sunday, April 19th @ 11:59pm* |
<table>
<thead>
<tr>
<th>Assignments in MyMathLab</th>
<th>Notes &amp; Due Dates</th>
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<tbody>
<tr>
<td><strong>Test #2 Chapters 3-4</strong></td>
<td>Due Monday April 20th @ 11:59pm</td>
</tr>
<tr>
<td><strong>Chapter 5  Trigonometric Identities</strong></td>
<td>The most common errors in this chapter are Algebra mistakes and not learning to recognize the identities.</td>
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<tr>
<td>5.1 Fundamental Identities</td>
<td>Due Sunday, April 26th @ 11:59pm</td>
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<tr>
<td>5.2 Verifying Trigonometric Identities</td>
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<tr>
<td>Minute Quiz #6</td>
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<tr>
<td>5.3 Sum and Difference Identities</td>
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<tr>
<td>Chapter 5.1-5.3 Quiz</td>
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<tr>
<td>5.4 Sum and Difference Identities for Sine and Cosine</td>
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<td>5.5 Double-Angle Identities</td>
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<tr>
<td>5.6 Half-Angle Identities</td>
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<tr>
<td>Minute Quiz #7</td>
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<td>Chapter 5.4-5.6 Quiz</td>
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<tr>
<td><strong>Test #3  Chapter</strong></td>
<td>Due Monday, April 27th @ 11:59pm</td>
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<tr>
<td><strong>Chapter 6  Inverse Circular Functions and Trigonometric Equations</strong></td>
<td>Last Day to Drop this course with a W is Thursday, April 30th</td>
</tr>
<tr>
<td>6.1 Inverse Circular Functions</td>
<td>Due Thursday, May 7th @ 11:59pm</td>
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<tr>
<td>6.2 Trigonometric Equations I</td>
<td></td>
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<tr>
<td>6.3 Trigonometric Equations II</td>
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<tr>
<td>Minute Quiz #8</td>
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<tr>
<td>Chapter 6 Quiz</td>
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<tr>
<td><strong>Chapter 7  Applications of Trigonometry and Vectors</strong></td>
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<tr>
<td>7.1 Oblique Triangles and the Law of Sines</td>
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<tr>
<td>Minute Quiz #9</td>
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<tr>
<td>7.2 The Ambiguous Case of the Law of Sines</td>
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<tr>
<td>Minute Quiz #10</td>
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<tr>
<td>7.3 The Law of Cosines</td>
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<tr>
<td>Minute Quiz #11</td>
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<tr>
<td>7.4 Geometrically Defined Vectors and Applications</td>
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<tr>
<td>7.5 Applications of Vectors</td>
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<tr>
<td>Minute Quiz #11</td>
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<tr>
<td>Chapter 7 Quiz</td>
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<tr>
<td><strong>Test #4  Chapters 6-7</strong></td>
<td>Due Friday, May 8th @ 11:59pm</td>
</tr>
<tr>
<td><strong>Chapter 8  Complex Numbers, Polar Equations, and Parametric Equations</strong></td>
<td>Not all parts of this chapter are covered. You are only responsible for the material covered in the HW.</td>
</tr>
<tr>
<td>8.1 Complex Numbers</td>
<td>Due Tuesday, May 12th @ 11:59pm</td>
</tr>
<tr>
<td>8.2 Trigonometric (Polar) Form of Complex Numbers</td>
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<tr>
<td>8.3 The Product and Quotient Theorems</td>
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<tr>
<td>8.4 De Moivre’s Theorem</td>
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<td>Chapter 8 Quiz</td>
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<td><strong>Comprehensive Final Test (Including Chapter 8)</strong></td>
<td>Due Wednesday, May 13th @ 11:59pm</td>
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