Coronavirus Update:  
Due to the Coronavirus outbreak, DCCCD has extended Spring Break one more week until Sunday, March 29, 2020. This course will now officially start on Monday, March 30. To learn more about DCCCD’s COVID-19 efforts, a public [website](https://example.com) has been created to provide additional information and resources.

**Plane Trigonometry Syllabus**
Richland College, School of Mathematics

**Instructor Information**
Name: Mr. Michael Puente  
DCCCD Email: michaelpuente@dcccd.edu  
Office Phone: 972.238.6049  
Office Location: Medina Hall 139  
Student Hours: Monday-Wednesday: 1:00pm-2:00pm, Thursday 8:30am-9:30am, Friday 8:00am-9:00am  
Division Office and Phone: SH205 972.238.6248

**Course Information**
Course Title: Plane Trigonometry  
Course Number: MATH 1316  
Section Number: 80430  
Semester/Year: Spring 2020  
Credit Hours: 3  
Class Meeting Time/Location: ONLINE  
Certification Date: Apr 3, 2020  
Last Day to Withdraw: May 4, 2020  
MyLab Math Registration: Must click any MyLab Math assignment in eCampus.  
Final Exam Date/Time: The final exam will be available online from 12:01am Thursday 5/14 until 11:59pm Thursday 5/14.
Course Prerequisites
MATH 1314 or equivalent
Note: MATH 1324 is not a sufficient equivalent course.

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 equations and parametric equations may be included.

Required Course Materials
1. The textbook required for this course is eText Reference for *Trigsted Algebra & Trigonometry*, Third Edition. The homework will be done online with MyLab Math homework system. You have a choice of purchasing either:
   a) the MyLab Math Access Code, packaged with the textbook, MyLab Math for Trigsted *Algebra & Trigonometry* – Access Card – Plus eText , 3/e, ISBN 9780135218105 (Recommended)
   OR
   Both options include access to the online homework system and the eBook. Option (a) includes the physical textbook. Please determine which option best fits your learning style.

   Note: A 14-day temporary access to MyLab Math is available so that you may get started on the course. Your access must be updated with a valid, purchased code prior to the end of the 14 days or your access will be closed. Follow the instructions in the emails that you will receive from MyLab Math in order to update your account.

2. A graphing calculator is required. A TI-83 or TI-84 is recommended; however, it must be one without a computer algebra system (CAS) or algebraic manipulation ability. Calculators that determine the exact trig function value of an angle in radical form may not be used on any MATH 1316 test or exam.

   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.
## Course Schedule

All due dates are 11:59pm Dallas time (CST) on the due date stated in MyLab Math.

<table>
<thead>
<tr>
<th>Week</th>
<th>Assignments</th>
</tr>
</thead>
</table>
| 1    | Discussion Board 1 & Getting Started in MyLab Math due Monday 3/30  
6.1 due Tuesday 3/31  
6.2 due Wednesday 4/1  
6.3 due Thursday 4/2  
6.4 & Information Sheet due Friday 4/3 |
| 2    | 6.5 due Monday 4/6  
6.6 and Written Assignment 1 due Tuesday 4/7  
Review for Exam 1 due Wednesday 4/8  
Exam 1 is available 12:01am Thursday 4/9 until 11:59pm Thursday 4/9  
7.1 due Friday 4/10 |
| 3    | 7.2 due Monday 4/13  
7.3 due Tuesday 4/14  
7.4 due Wednesday 4/15  
7.5 & Written Assignment 2 due Thursday 4/16  
Review for Exam 2 due Friday 4/17 |
| 4    | Exam 2 is available 12:01am Monday 4/20 until 11:59pm Monday 4/20  
8.1 due Tuesday 4/21  
8.2 due Wednesday 4/22  
8.3 due Thursday 4/23  
8.4 & Discussion Board 2 due Friday 4/24 |
| 5    | 8.5 & Written Assignment 3 due Monday 4/27  
Review for Exam 3 due Tuesday 4/28  
Exam 3 is available 12:01am Wed 4/29 until 11:59pm Wed 4/29  
9.1 due Thursday 4/30  
9.2 due Friday 5/1 |
| 6    | 9.3 due Monday 5/4  
9.4 due & Written Assignment 4 due Tuesday 5/5  
Review for Exam 4 due Wednesday 5/6  
Exam 4 is available 12:01am Thursday 5/7 until 11:59pm Thursday 5/7  
10.3 due Friday 5/8 |
| 7    | 10.4 due Monday 5/11  
10.5 due Tuesday 5/12  
Review for Final Exam due Wednesday 5/13  
Final Exam is available 12:01am Thursday 5/14 until 11:59pm Thursday 5/14 |
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>Percentage</th>
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<tbody>
<tr>
<td>Homework Assignments in MyLab Math</td>
<td>15%</td>
</tr>
<tr>
<td>Tests (4)</td>
<td>55%</td>
</tr>
<tr>
<td>Final Exam</td>
<td>20%</td>
</tr>
<tr>
<td>Written Assignments (4)</td>
<td>6%</td>
</tr>
<tr>
<td>Information Sheet</td>
<td>1%</td>
</tr>
<tr>
<td>Virtual Office Hours Participation</td>
<td>1%</td>
</tr>
<tr>
<td>Discussion Boards (2)</td>
<td>2%</td>
</tr>
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**TOTAL: 100%**

Final Grade

<table>
<thead>
<tr>
<th>Percentages</th>
<th>Letter Grade</th>
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</thead>
<tbody>
<tr>
<td>90-100%</td>
<td>A</td>
</tr>
<tr>
<td>80-89%</td>
<td>B</td>
</tr>
<tr>
<td>70-79%</td>
<td>C</td>
</tr>
<tr>
<td>60-69%</td>
<td>D</td>
</tr>
<tr>
<td>0-59%</td>
<td>F</td>
</tr>
</tbody>
</table>

Attendance Policy
In order to be successful, students must be present online and participate in enrolled courses. Because online courses move quickly and require self-discipline, it is important to efficiently manage your time. This would include not waiting until the last minute to turn in assignments or tests. Technology is not fail proof, so allow time for unforeseen circumstances.

Email Policy
Students are expected to check their email regularly. To make sure you receive all announcements and important updates, verify that the email address in eCampus
(ecampus.dcccd.edu) is accurate by going to Personal Information. When sending an email, please include your name and section number. I check email regularly and will respond to your email within 24 hours.

**Homework**

To register for MyLab Math, you **must click any MyLab Math assignment in eCampus**. Clicking a MyLab Math tab in eCampus will direct you to our MyLab Math course registration page and allow grades to sync. All assignments are due by the time and date indicated in MyLab Math.

Allow time for computer problems, do not wait until the last minute. Computers are available on campus; you do not need to have a computer or internet access at home unless you do not want to work on campus. It is your responsibility to know the computer lab hours if you choose to do homework on campus and to plan accordingly.

Have your homework assignments done by their due dates. Students who keep up with homework assignment due dates usually have much better exam grades than those who fall behind schedule.

Each homework assignment is due by the time and date indicated in MyLab Math. Homework problems not completed by their due date may still be worked until the last day to take the exam covering that homework material, which is the deadline for those homework assignments. Homework problems worked after their due date, but before their deadline, will be subject to a 20% point penalty reduction. No homework problems may be worked or submitted for credit after their deadline. **At the end of the semester, the lowest 2 of your homework assignment scores will be dropped.**

**Written Assignments**

There are 4 Written Assignments (found under each unit in eCampus) that require you to show your work. Submit work in eCampus by 11:59pm on the due date. These must be submitted on time and no late work is accepted. **(See Instructions for Submitting Written Work below).**

**Information Sheet**

This is a survey posted in eCampus. You need to complete this survey and submit it in eCampus (under the “Unit 1 – Start Here!” tab) by the due date in the calendar above. **(See Instructions for Submitting Written Work below).**
Discussion Boards
There will be 2 graded discussion board assignments in eCampus. The due dates are listed in the calendar above. Each discussion board assignment requires you to respond to others in the board. If you wait till the last minute, then no one has the opportunity to respond to your post. **Any posts made after the due date will not be considered for grading purposes.**

Exams 1-4
These 80 minute online exams are in MyLab Math. You must show work on all of the problems and submit it according to the instructions below (Instructions for Submitting Written Work). All solutions to problems must be supported by work that clearly shows a progression to the answer given in MyLab Math. If the work cannot be read, is unorganized, is not correct, or is missing, then the problem will receive little or no credit, regardless of whether the solution is correct. Follow all directions carefully. Simplify all answers completely to receive full credit and use correct mathematical notation including proper use of equal signs. The exam must be completed all at once and will immediately submit if you go to any other website or try to access the book or homework problems within MyLab Math. The exam will not be reopened if this happens. If your exam, MyLab Math, the internet or anything else fails during the exam, submit your work within 30 minutes of that happening. The exam is not reopened for any reason. If you are unsure of your internet connection, be sure to take it in a lab at Richland. After you take the exam, you need to submit your written work **within 30 minutes.** There are time stamps on both, so this will be considered. If the written work is late, up to 2 points will be deducted for each minute over the 30 minute window. The best way to study for the exams is to use the homework assignments and the Review Assignment for the Exam. If you do not take the exam, you will receive the grade of zero. There are no make-ups or retakes for any reason.

Final Exam
This 110 minute online exam is comprehensive. You must show work on all of the problems and submit it according to the instructions below (Instructions for Submitting Written Work). All solutions to problems must be supported by work that clearly shows a progression to the answer given in MyLab Math. If the work cannot be read, is unorganized, is not correct, or is missing, then the problem will receive little or no credit, regardless of whether the solution is correct. Follow all directions carefully. Simplify all answers completely to receive full credit and use correct mathematical notation including proper use of equal signs. The exam must be completed all at once and will immediately submit if you go to any other website or try to access the book or homework problems within MyLab Math. The exam will not be reopened if this
happens. If your exam, MyLab Math, the internet or anything else fails during the exam, submit your work within 30 minutes of that happening. The exam is not reopened for any reason. If you are unsure of your internet connection, be sure to take it in a lab at Richland. After you take the exam, you need to submit your written work **within 30 minutes** by uploading your work in eCampus (under the “Upload Written Work” tab). There are time stamps on both, so this will be considered. If the written work is late, up to 2 points will be deducted for each minute over the 30 minute window. The best way to study for the exam is to use the homework assignments and the Review Assignment for the Exam. If you do not take the exam, you will receive the grade of zero. There are no make-ups or retakes for any reason. **The Final Exam grade will replace the lowest grade of Exams 1-4, if the Final Exam grade is higher.**

**Instructions for Submitting Written Work**

When you do your work for submission, it should have your name on it and the problems worked out in order. Write out your work, do not type. You may scan your work or take pictures of it with your phone or camera. Once completed, only one PDF document should be uploaded in eCampus. If you have multiple images, open a Word document and drag the pictures over to that file (only 1 picture per page, resize images, if necessary, to fill as much of the page as possible) then go to “File” > “Export” > “Create a PDF.” Once you have done this, open the document and check that it is readable, in order, and that each piece of paper that you used is full size on a separate page in the document. Name your file with your Last Name first. For example, “LastNameExam1.pdf”

- As a DCCCD student, Microsoft Word is included free with Office 365. Click here for more information.
- You can also use an app like Office Lens or CamScanner. Both are available for Apple and Android devices. These apps will use your phone or tablet as a scanner and allow you to put all of the pages of your work into one pdf.

**Office Hours/Virtual Office Hours Participation**

I will be available by live chat via Blackboard Collaborate Tuesdays 1:00pm-2:00pm and Thursdays from 5:00pm-6:00pm. In addition to live chat, there is an interactive, digital whiteboard and audio/video features. You are invited to participate and ask questions. You may need to download the Bb Student app to join on your mobile device. To encourage active participation in Virtual Office Hours (via eCampus), students will be **required to attend at least one session for a minimum of 10 minutes and will be graded based on the schedule below.** If you have a conflict with the scheduled times, please email your instructor to set up an appointment.

<table>
<thead>
<tr>
<th>Virtual Office Hours Date</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/31, 4/2, 4/7, 4/9</td>
<td>100%</td>
</tr>
</tbody>
</table>
Instructor Suggestions for Student Success

- **DO** get information about free online help by clicking on the “Thunderduck Commons” community in eCampus. In Thunderduck Commons, you can post questions to the discussion board (response times may vary) or join LIVE virtual tutoring sessions by request.
- **DO** pay attention to the learning outcomes listed in each module. The learning outcomes tell you exactly what you need to learn or do succeed. They are cues to help you focus your time and attention.
- **DO** read the eText and watch the videos embedded in the assignments to get full explanation of the content. The exercises should be done at the end of the reading to check your understanding of the information covered.
- **DO** all assignments before the due date and manage your time. If you wait until the last minute you may not have enough time to learn the material or to ask questions before the assignment is due.
- **DO** use my feedback to improve your work. I will provide feedback on Written Assignments and Exams to help you improve the quality of your work. We can both take advantage of this feedback to strengthen your learning and performance in this course.
- **DO** respond to me when I offer to help. I will be monitoring your performance, and from time to time I may reach out to you personally to offer help or encouragement. When you respond, we can work together to improve your understanding.
- **DO** reach out to me when you need help. I am a resource for you in this course. Do not hesitate to reach out if you’re struggling with the subject matter or course requirements. When you reach out, we can work together to keep you on track for success.
- **DO** be respectful of others. As in any educational setting, I expect everyone in the course to be respectful of other people as well as their academic work. This applies in all interactions, online and/or in person.

Diversity Statement

I consider this classroom to be a place where you will be treated with respect, and I welcome individuals of all ages, backgrounds, beliefs, ethnicities, genders, gender identities, gender expressions, national origins, religious affiliations, sexual orientations, ability – and other visible and nonvisible differences. All members of this class are expected to contribute to a respectful, welcoming and inclusive environment for every member of the class.
MyLab Math and eCampus Help
If you have concerns about MyLab Math, contact Tech support for MyLab Math: 1-800-677-6337, or email them at Contact MyLab Math

If you have concerns about eCampus, you must contact tech support for ecampus. Click on the ecampus ‘Help’ tab for information on how to contact them.

Academic Dishonesty in Math Classes
Academically dishonest behavior is, in general, the representation of another’s work as one’s own. This includes unauthorized collaboration between students, and on exams it includes using books, notes or other unauthorized materials or websites or apps during the exam. Students who behave in academically dishonest ways may have their grade penalized or be subject to disciplinary action by the Dean of Students. Students who collaborate during exams or use unauthorized materials or websites or apps may, at the instructor’s discretion, have the exam grade lowered or be given a grade of zero. In the instance that the student is given the grade of zero on a unit exam, the right to having any unit exam replaced by the Final Exam grade is forfeited. Students who are academically dishonest on the Final Exam may, at the instructor's discretion, have the grade lowered, be given a zero, or be given the grade of F in the course.

Student Learning Outcomes
Upon successful completion of this course, students will be able to:
1. Compute the values of trigonometric functions for key angles in all quadrants of the unit circle measured in 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.
7. Compute the angular and real number values of the inverse trigonometric functions of real numbers.
8. Use vectors to describe physical situations.
9. Find and use the trigonometric (polar) form of complex numbers.

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:
• **Critical Thinking Skills** - to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information

• **Communication Skills** - to include effective development, interpretation, and expression of ideas through written, oral, and visual communication

• **Empirical and Quantitative Skills** - to include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions

### Specific Content Coverage

<table>
<thead>
<tr>
<th>Section</th>
<th>Title</th>
<th>Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.1</td>
<td>An Introduction to Angles: Degree and Radian measure</td>
<td>1</td>
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<tr>
<td>6.2</td>
<td>Application of Radian measure</td>
<td>1, 6</td>
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<tr>
<td>6.3</td>
<td>Triangles</td>
<td>6</td>
</tr>
<tr>
<td>6.4</td>
<td>Right Triangle Trigonometry</td>
<td>1, 5</td>
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<tr>
<td>6.5</td>
<td>Trigonometric Functions of General Angles</td>
<td>1</td>
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<tr>
<td>6.6</td>
<td>The Unit Circle</td>
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<tr>
<td>7.1</td>
<td>The Graphs of Sine and Cosine</td>
<td>2</td>
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<tr>
<td>7.2</td>
<td>More on Graphs of Sine and Cosine: Phase Shift</td>
<td>2</td>
</tr>
<tr>
<td>7.3</td>
<td>The Graphs of the Tangent, Cosecant, Secant, and Cotangent Functions</td>
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<td>7.4</td>
<td>Inverse Trigonometric Functions I</td>
<td>7</td>
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<tr>
<td>7.5</td>
<td>Inverse Trigonometric Functions II</td>
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<td>8.1</td>
<td>Trigonometric Identities</td>
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<td>8.2</td>
<td>The Sum and Difference Formulas</td>
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<td>8.3</td>
<td>The Double-Angle and Half-Angle Formulas</td>
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<tr>
<td>8.4</td>
<td>The Product-to-Sum and Sum-to-Product Formulas</td>
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<tr>
<td>8.5</td>
<td>Trigonometric Equations</td>
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<tr>
<td>9.1</td>
<td>Right Triangle Applications</td>
<td>5, 6</td>
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<td>9.2</td>
<td>The Law of Sines</td>
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<td>9.3</td>
<td>The Law of Cosines</td>
<td>5</td>
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<tr>
<td>9.4</td>
<td>Area of Triangles</td>
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<td>Section</td>
<td>Title</td>
<td>Outcomes</td>
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<tr>
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<tr>
<td>10.3</td>
<td>Complex Numbers in Polar Form; De Moivre’s Theorem</td>
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<td>10.4</td>
<td>Vectors</td>
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<td>10.5</td>
<td>The Dot Product</td>
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</tbody>
</table>

**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.

[Richland Institutional Policies](http://www.richlandcollege.edu/syllabipolicies)