# MATH1316 Syllabus

Dallas College – Richland Campus

## Contacting your instructor

Your instructor typically respond to emails from students with 24 hours; however, over the weekend and holiday periods responses maybe delayed. Find out more about [contacting your instructor](https://www.dcccd.edu/cd/dcc/olearn/getready/pages/your-online-instructor.aspx).

## Instructor Contact Information

Name: Dr. Padmal Mahawanniarachchi

Instructor’s Email Address: [padmalm@dcccd.edu](mailto:padmalm@dcccd.edu)

Instructor’s Phone Number: 972 284 5556

Student Hours/Location: Tuesdays and Thursdays 9:30 – 11:00A.M. room D139 in Del Rio Hall, and

Mondays and Wednesdays 2:00 – 3:00P.M. Virtually (Please email me to schedule an appointment.)

Division Office and Phone: School of Engineering, Technology, Mathematics & Sciences

Email: [AskETMS@dcccd.edu](mailto:AskETMS@dcccd.edu) Phone: 972-238-6248

## Course Information

Course Title: Plane Trigonometry

Course Number: MATH1316

Section Number: 81805

Semester/Year: Fall 2021

Credit Hours: 3

Class Meeting Time/Location: Mondays/Wednesdays 9:30-10:50A.M. / Room D174 in Del Rio Hall

Class Start Date: 08-23-2021 (Monday)

Certification Date: 09-04-2021 (Saturday)

Last Day to Withdraw: 11-11-2021 (Thursday)

Final Exam Date: 12-6-2021 (Monday)

## Email Policy

Check your email regularly for class reminders and announcements. Check both your inbox and junk folders to be sure you receive all course correspondence. Before class begins, you should log into your eConnect account and see if your email address on file is correct ([eConnect.dcccd.edu](https://dcccd-my.sharepoint.com/personal/mpp8401_dcccd_edu/Documents/Spring%202017/MATH%201316O/ecampus.dcccd.edu)). If you want your class correspondence sent to a different email address, then change your email address in eConnect. [Changing My Email in eConnect](https://www.dcccd.edu/current-students/tutorial-videos/pages/change-email-econnect.aspx)

## Course Prerequisites

MATH1314 or equivalent. Note: MATH 1324 is not a sufficient prerequisite

## Required Course Materials

1. The learning materials (access to the MyLab Math homework system, online version of the textbook) are provided for you as part of the [IncludED program](https://www.dcccd.edu/included) (dcccd.edu/included). You may access these course materials by clicking on the MyLab Math link in your eCampus account for this class.
   * If you opted out of the IncludED program, you are responsible for obtaining your required learning materials [MyLab Math with Pearson eText for Trigonometry (12th Edition), by Lial, Hornsby, Schneider and Daniels; ISBN: 9780136841067] by the first day of class. For more details, see [Institutional Policies](http://www.dcccd.edu/syllabipolicies).
   * If you opted out of the IncludED program and now wish to opt-in, send an email to studentquestions@dcccd.edu and ask to opt back into the program. Students will have until the Wednesday before the first day of class to opt back into the IncludED program. Students who opt back in late might not receive their learning materials on the first day of class.
   * If you opted out of the IncludED program and do not wish to opt-in, or it is too late to opt-in, fill in all fields of this [Student Form](https://forms.office.com/Pages/ResponsePage.aspx?id=1zTEjNCX00e1xRT-DjPjSwrAkj-1dyVKmaEAJzQeBc5UQ0g0Mk85QTYyNFZRTDNMUUI3VjRUOVIyMi4u), and you will be contacted by a Dallas College bookstore to coordinate access to your course materials.
2. A graphing calculator is required. A calculator in the TI-83 or TI-84 family is recommended; however, it must be one without a computer algebraic system (CAS) or algebraic manipulation ability. Calculators that determine the exact trigonometric function value of an angle in radical form may not be used on any MATH1316 exam.

## Certification

Students must complete a graded assignment or attend class by the certification date in order to be certified for attenting this class. Certification primarily affects students who are on Financial Aid.

## 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.

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 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.

## 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

| Course Assignments | Percentage of Course Grade |
| --- | --- |
| MyLab Math Homework Assignments | 15% |
| MyLab Math Quizzes (6 at 1.5% each) | 9 |
| Exams (4 at 14% each) | 56 |
| Final Exam | 20 |
| **TOTAL** | **100%** |

### Final Course Grade Determination

| Weighted Course Average Percentage | Course Grade |
| --- | --- |
| 90-100% | A |
| 80-89% | B |
| 70-79% | C |
| 60-69% | D |
| 0-59% | F |

### Summary of Graded Work: Descriptions

The course work used to determine the grade in this course is described below.

1. Homework Assignments in MyLab Math
   1. All homework assignments and instructional videos are found by clicking on the MyLab Math website link in eCampus. When in MyLab Math, click on the ‘Homework’ tab. Homework assignments may be worked ahead of their due dates, so work ahead if the due dates conflict with your personal schedule.
   2. Almost every assigned homework problem can be repeated up to 4 times by doing a similar problem. MyLab Math will keep the best score of all attempts on the same problem.
   3. 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 11:59 pm the night before the exam covering that homework material is given, which is the deadline for those homework assignments. Homework problems worked after their due date, but before their deadline, will be subject to a 15% point penalty reduction. No homework problems may be worked or submitted for credit after their deadline.
   4. After their deadline, homework assignments may be viewed by clicking on *‘Gradebook’* (in MyLab Math), then clicking on the assignment link. This allows you to review the problems, but you will not be able to enter any answers into homework assignment problems after 11:59 pm the night before the exam covering that homework material was given.
   5. The deadline for homework sections taught after Exam 4 is 11:59pm Dec. 5.
2. Quizzes in MyLab Math
   1. There are six quizzes found by clicking on ‘MyLab Math’ tab in eCampus, then clicking on the ‘Quizzes’ tab in MyLab Math.
   2. These quizzes serve as a review for each exam. The problems in the quizzes are similar to those found on the exams.
   3. You may work each quiz up to a maximum of 3 times. The best score on a quiz is kept. Each quiz has a ‘save for later’ option so you may exit a quiz before you are finished and return to it later to complete and submit it.
   4. The quizzes are designed to simulate a test so not all Question Help options will be available on the quizzes.
3. Unit Exams and Final Exam
   1. There are 4 Unit Exams and a cumulative Final Exam that will be taken in the classroom.
   2. Each exam will be based on its Review Quiz in MyLab Math.
   3. A student may be allowed extra time on exams only if they have provisions from the Disability Services department allowing additional time on exams.
   4. The Final Exam is required of all students and counts 20% of the course grade.
   5. Any exam that is not taken will earn a score of zero.

## Online Tutoring

Free online tutoring is available in eCampus. Click the “Online Tutoring” tab in your eCampus course for information on how to access Dallas College’s Online Tutoring services.

## On-Campus Tutoring

Visit the Learning Center at Richland College, room M-216, or the STEM Resource Center at any Dallas College for homework help. [Stem Resource Centers at Dallas College](https://www.dallascollege.edu/resources/centers/stem/pages/default.aspx).

You may also contact your instructor if you have questions. See page 1 of this syllabus for your instructor’s contact information and office hours. You may meet with your instructor at their office without an appointment during their office hours or you may contact your instructor and make an appointment to meet with them in-person or virtually, outside of their scheduled office hours.

## Tentative Monday-Wednesday Course Schedule

| **Week** | **Monday** | **Wednesday** | **Assignment Due Dates**  **(at 11:59pm Dallas Time)** |
| --- | --- | --- | --- |
| **Week 1** | Aug 23  Intro, R.5, 1.1 | Aug 25  1.2, 1.3 | Due Thurs 8/26: Prep for Trig, R.5, 1.1  Due Sun 8/29: Sections 1.2, 1.3 Asmts |
| **Week 2** | Aug 30  1.4, 2.1 (start) | Sept 1  2.1 (finish), 2.2 | Due Thurs 9/2: Section 1.4 Asmt  Due Sun 9/5: Sections 2.1, 2.2 Asmts |
| **Week 3** | Sept 6  **No Class** | Sept 8  2.3, 2.4 | Due Sun 9/12: Sections 2.3, 2.4 Asmts |
| **Week 4** | Sept 13  2.5,Exam 1 Rvw | Sept 15  **Take Exam 1** | Due **Tues 9/14**: Section 2.5, Quiz 1  Due Sun 9/19: Nothing due |
| **Week 5** | Sept 20  3.1, 3.2 | Sept 22  3.3, 3.4 | Due Thurs 9/23: Sections 3.1, 3.2  Due Sun 9/26: Sections 3.3, 3.4 Asmts |
| **Week 6** | Sept 27  4.1, 4.2 | Sept 29  4.3, 4.4 | Due Thurs 9/30: Sections 4.1, 4.2  Due Sun 10/3: Sections 4.3, 4.4 Asmts |
| **Week 7** | Oct 4  Exam 2 Revw | Oct 6  **Take Exam 2** | Due **Tues** **10/5**: Quiz 2  Due Sun 10/10: Nothing due |
| **Week 8** | Oct 11  5.1, 5.2 (start) | Oct 13  5.2 (finish), 5.3 | Due Thurs 10/14: Section 5.1 Asmt  Due Sun 10/17: Sections 5.2, 5.3 Asmt |
| **Week 9** | Oct 18  5.4, 5.5 (start) | Oct 20  5.5 (finish), 5.6 | Due Thurs 10/21: Section 5.4 Asmt  Due Sun 10/24: Sections 5.5, 5.6 |
| **Week 10** | Oct 25  6.1, 6.2 (start) | Oct 27  6.2 (finish), 6.3 | Due Thurs 10/28: Section 6.1 Asmt  Due Sun 10/31: Sections 6.2, 6.3 |
| **Week 11** | Nov 1  6.4,Exam 3 Rvw | Nov 3  **Take Exam 3** | Due **Tues** **11/2**: Section 6.4, Quiz 3  Due Sun 11/7: Nothing due |
| **Week 12** | Nov 8  7.1, 7.2 (start) | Nov 10  7.2 (finish), 7.3 | Due Thurs 11/11: Section 7.1 Asmt  Due Sun 11/14: Sections 7.2, 7.3  Nov. 11 is the last day to drop course |
| **Week 13** | Nov 15  7.4, 7.5(start) | Nov 17  7.5 (finish), 8.1 | Due Thurs 11/18: Sections 7.4 Asmt  Due Sun 11/21: Section 7.5, 8.1 |
| **Week 14** | Nov 22  Exam 4 Revw | Nov 24  **Take Exam 4** | Due **Tues** **11/23**: Quiz 4  Due Sun 11/28: Nothing due, recommend working Quiz 5-Part 1 |
| **Week 15** | Nov 29  8.2, 8.3, 8.4(start) | Dec 1  8.4, Final Revw | Due Thurs 12/2: Sections 8.2, 8.3  Due Sun 12/5: Section 8.4, Quiz 5 Parts 1 & 2 |
| **Week 16**  **Finals Week** | Dec 6 | Dec 8 | See syllabus for Final Exam date.  Final Exam is required. |

## Attendance and Your Final Grade

In order to be successful, students must be present and participate in enrolled courses. This course moves quickly and requires self-discipline, so it is important to efficiently manage your time. This includes not waiting until the last minute to turn in assignments. Technology is not fail proof, so allow time for unforeseen circumstances.

## Late Work and Missed Exam Policies

Homework problems not completed by their due date may still be worked until 11:59 pm the night before the exam covering that homework material is given, which is the deadline for those homework assignments. Homework problems worked after their due date, but before their deadline, will be subject to a 15% point penalty reduction. No homework problems may be worked or submitted for credit after their deadline. The deadline for homework sections taught after Exam 4 is 11:59pm Dec. 5. The three lowest homework assignment grades will be dropped at the end of the semester to allow for unforeseen circumstances that would prevent a student from completing an assignment.

Exams and quizzes may not be taken late. If a quiz or homework due date conflicts with your schedule, work ahead if possible. If you experience an extreme circumstance which causes you to be unable to work on any course items, including taking an exam, then those missed course items may be allowed late submissions only at the discretion of your instructor. You must contact your instructor within 48 hours of those missed course items’ due dates and provide verifiable documentation when requesting a due date extension.

## Class Cancellation Procedures

In the event of a class cancellation due to inclement weather or instructor absence, students should continue to follow the course calendar and submit assignments at the scheduled times. Use the online textbook, eText, and the help-aid features of MyLab Math to gain an understanding of the material.

## Other Course Policies

**If you complete all your MyLab Math homework assignments with a minimum score of 80%, your lowest exam score will be replaced with your final exam score, if that is to your advantage. A zero exam score due to academic dishonesty won’t be replaced with the final exam score.**

## MyLab Math and eCampus Help

For concerns with MyLab Math, contact Tech support for MyLab Math: 1-800-677-6337, or email them at [Contact MyMathLab](http://www.mymathlab.com/contactus.html)

For concerns with eCampus, contact tech support for eCampus. Click on the eCampus ‘Help’ tab for information on how to contact them or contact eCampus Student Tech SupportatPhone: 1-866-374-7169 or 972-669-6402 |  [Web-based Technical Support](https://help.edusupportcenter.com/shplite/dcccd/home)

# Course Content Coverage

| Textbook Section | Section Contents |
| --- | --- |
| R.5 | Radical Expressions |
| 1.1 | Angles |
| 1.2 | Angle Relationships and Similar Triangles |
| 1.3 | Trigonometric Functions |
| 1.4 | Using Definitions of Trigonometric Functions |
| 2.1 | Trigonometric Functions of Acute Angles |
| 2.2 | Trigonometric Functions of Non-Acute Angles |
| 2.3 | Approximations of Trigonometric Function Values |
| 2.4 | Solutions & Applications of Right Triangles |
| 2.5 | Further Applications of Right Triangles |
| 3.1 | Radian Measure |
| 3.2 | Application of Radian Measure |
| 3.3 | The Unit Circle & Circular Functions |
| 3.4 | Linear & Angular Speed |
| 4.1 | Graphs of the Sine and Cosine Function |
| 4.2 | Translations of the Graphs of the Sine & Cosine Functions |
| 4.3 | Graphs of the Tangent & Cotangent Functions |
| 4.4 | Graphs of the Secant & Cosecant Functions |
| 5.1 | Fundamental Identities |
| 5.2 | Verifying Trig Identities |
| 5.3 | Sum and Difference Identities for Cosine |
| 5.4 | Sum and Difference Identities for Sine and Tangent |
| 5.5 | Double Angle Identities |
| 5.6 | Half-Angle Identities |
| 6.1 | Inverse Circular Functions |
| 6.2 | Trigonometric Equations I |
| 6.3 | Trigonometric Equations II |
| 6.4 | Equations Involving Inverse Trigonometric Functions |
| 7.1 | Oblique Triangles and the Law of Sines |
| 7.2 | The Ambiguous Case of the Law of Sines |
| 7.3 | The Law of Cosines |
| 7.4 | Vectors, Operations, and the Dot Product |
| 7.5 | Applications of Vectors |
| 8.1 | Complex numbers |
| 8.2 | Trigonometric (Polar) Form of Complex Numbers |
| 8.3 | The Product and Quotient Theorems |
| 8.4 | De Moivre’s Theorem, Powers & Roots:Complex Numbers |

## 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 a student and another person, and on exams it also includes using books, notes, unauthorized materials, websites, or apps during any exam. Students who behave in an academically dishonest manner may have their grade penalized and be subject to disciplinary action by the Dallas College Advocacy Office. Students who collaborate with another person during exams, use unauthorized materials, websites or apps while taking an exam may have the exam score lowered or be given a score of zero on the exam. Students who are academically dishonest on the Final Exam may, at the instructor's discretion, have the Final Exam score lowered, be given a zero on the Final Exam, or be assigned the grade of F in the course.

## 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](https://www.dcccd.edu/about/legal/policies-for-syllabi/pages/default.aspx) include information about tutoring, Disabilities Services, class drop and repeat options, Title IX, and more.