MATH 1316 – TRIGONOMETRY  
DEPARTMENT OF MATHEMATICS & STATISTICS  
SPRING 2019

A. COURSE INFORMATION

Course number/section: MATH - 1316.001
Class meeting time: MWF 9:00 – 9:50 AM
Class location: IH - 156
Course Website: www.bb9.tamucc.edu

B. INSTRUCTOR INFORMATION

Instructor: NENE COULIBALY
Office location: CI - 317
Telephone: 361-825-2219
E-mail: Nene.Coulibaly@tamucc.edu
Appointments: To schedule an appointment, please email me in advance.

C. COURSE DESCRIPTION

Trigonometric functions and trigonometric identities. Equations involving trigonometric functions. Solutions of right and oblique triangles

D. PREREQUISITES AND COREQUISITES

Prerequisites
Math 1314 College Algebra or placement into trigonometry.

Corequisites
None

E. REQUIRED TEXTBOOK(S), READINGS AND SUPPLIES

Required Textbook/Software:
Pearson MyLabsPlus Student Access Kit is mandatory. You can get the access code for Mylabsplus either in university book store or online. Link for online homework is www.tamucc.mylabsplus.com.

Optional Textbook(s) or Other References
Trigonometry 11th edition by Lial, Hornsby, Schneider and Daniels published by Pearson. The purchase of this book is optional because an eBook is located in the MyLabsPlus course framework.

Supplies
TI 83/84 Plus Graphing Calculator. Other calculators will not be supported by the instructor. The website is www.tamucc.mylabsplus.com. Use your Island ID for User Name and ask for a password reset.

F. STUDENT LEARNING OUTCOMES AND ASSESSMENT

Assessment is a process used by instructors to help improve learning. Assessment is essential for effective learning because it provides feedback to both students and instructors. A critical step in this process is
making clear the course’s student learning outcomes that describe what students are expected to learn to be successful in the course. The student learning outcomes for this course are listed below. By collecting data and sharing it with students on how well they are accomplishing these learning outcomes students can more efficiently and effectively focus their learning efforts. This information can also help instructors identify challenging areas for students and adjust their teaching approach to facilitate learning.

Upon successful completion of this course, students will

1. Compute the values of trigonometric functions for key angles in all quadrant 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 obliques triangles.
6. Use the concepts of trigonometry to solve applications.

G. INSTRUCTIONAL METHODS AND ACTIVITIES

The instructional method is a combination of lectures and students’ activities. Students will be shown models of solutions and will work independently or in groups to demonstrate mastery. Students will use MyLabsPlus independently to complete homework assignments. At the end of the semester, students will show competency by passing all assignments, quizzes, tests and the final exam with a score of 60% or better.

H. MAJOR COURSE REQUIREMENTS AND GRADING

The student learning outcomes described in Section F will be measured via progress on homework, quizzes, tests and the final exam. Every problem in the homework can be worked multiple times until a correct answer is achieved. There is no reason not to obtain a 100 on every homework assignment. Doing so will strengthen your performance on quizzes and tests. The homework will be open all semester. It is strongly recommended that you complete the homework for a chapter prior to the chapter test. The final exam is comprehensive which means that it will cover all the materials you learn during the semester. I do expect you to remember all concepts that I teach as noted on this syllabus.

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>% of FINAL GRADE</th>
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<tbody>
<tr>
<td>Exam 1</td>
<td>15%</td>
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<tr>
<td>Exam 2</td>
<td>15%</td>
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<tr>
<td>Exam 3</td>
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<tr>
<td>Final Exam</td>
<td>20%</td>
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<tr>
<td>Homework</td>
<td>20%</td>
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<tr>
<td>Quizzes</td>
<td>15%</td>
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Grades will be assigned according to the following scale.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>A</td>
<td>90%-100%</td>
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<tr>
<td>B</td>
<td>80%-89.99%</td>
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<tr>
<td>C</td>
<td>70%-79.99%</td>
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<tr>
<td>D</td>
<td>60%-69.99%</td>
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<tr>
<td>F</td>
<td>below 60%</td>
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## I. COURSE CONTENT/SCHEDULE

<table>
<thead>
<tr>
<th>DATE (BY WEEK)</th>
<th>CONTENTS</th>
<th>TOPIC(S)</th>
<th>ASSIGNMENTS</th>
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</thead>
</table>
| 1             | Syllabus discussion  
1.1 Angles  
1.2 Angle Relationships and Similar Triangles | Topic 1 | MLP HMK |
| 2             | 1.3 Trigonometric Functions  
1.4 Using the Definitions of the Trigonometric Functions | Topic 1 | MLP HMK & QUIZ |
| 3             | 2.1 Trigonometric Functions of Acute Angles  
2.2 Trigonometric Functions of Non-Acute Angles | Topic 2 | MLP HMK & QUIZ |
| 4             | 2.3 Finding Trigonometric Function Values Using a Calculator  
2.4 Solving Right Triangles  
2.5 Further Applications of Right Triangles | Topic 2 | MLP HMK |
| 5             | *EXAM 1* (1.1 – 2.5)  
3.1 Radian Measure | Topic 3 | MLP HMK & QUIZ |
| 6             | 3.2 Applications of Radian Measure  
3.3 The Unit Circle and Circular Functions  
3.4 Linear and Angular Speed | Topic 3 | MLP HMK & QUIZ |
| 7             | 4.1 Graphs of the Sine and Cosine Functions  
4.2 Translations of the Graphs of the Sine and Cosine  
4.3 Graphs of the Tangent and Cotangent Functions | Topic 4 | MLP HMK & QUIZ |
| 8             | 4.4 Graphs of the Secant and Cosecant Functions  
4.5 Harmonic Motion  
**EXAM 2** (3.1 – 4.5) | Topic 4 | MLP HMK |
| 9             | SPRING BREAK NO CLASS | | |
| 10            | 5.1 Fundamental Identities  
5.2 Verifying Trigonometric Identities  
5.3 Sum and Difference Identities for Cosine | Topic 5 | MLP HMK & QUIZ |
| 11            | 5.4 Sum and Difference Identities for Sine and Tangent  
5.5 Double-Angle Identities  
5.6 Half-Angle Identities | Topic 5 | MLP HMK |
| 12            | 6.1 Inverse of Circular Functions  
6.2 Trigonometric Equations I  
6.3 Trigonometric Equations II | Topic 6 | MLP HMK & QUIZ |
6.4 Equations Involving Inverse Trigonometric Functions

***EXAM 3*** (5.1 – 6.4)

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

Topics 7

Final Exam Review

FINAL EXAM – FRIDAY – MAY 3\textsuperscript{rd} @ 2:00 PM

**IMPORTANT DATES**

SPRING BREAK HOLIDAY – MARCH 11 - 15 - NO CLASS
DEADLINE FOR DROPPING A COURSE IS FRIDAY – APRIL 5\textsuperscript{th}

* Exam 1 – Wednesday, February 13\textsuperscript{th}
** Exam 2 – Friday, March 8\textsuperscript{th}
*** Exam 3 – Friday, April 12\textsuperscript{th}

MyLabsPlus Homework due dates are Mondays:
- Sections 1.1 – 2.5 February 13\textsuperscript{th} @ 8:00 AM
- Sections 3.1 – 4.5 March 8\textsuperscript{th} @ 8:00 AM
- Sections 5.1 – 6.4 April 12\textsuperscript{th} @ 8:00 AM
- Sections 7.1 – 7.3 April 29\textsuperscript{th} @ 8:00 AM

Note: Changes in this course schedule may be necessary and will be announced to the class by the Instructor. The assignments and exams shown are directly related to the Student Learning Outcomes.

**J. COURSE POLICIES**

**Attendance/Tardiness**
Attendance will be taken each class and each **absence after 4 times will result in one letter grade lower (6th absence will result in two-letter grade lower).** Please save absences for emergencies. Talking during class time and tardiness are often disruptive to the whole class and are not appreciated. If you are delayed and arrive late please do so quietly. Excessive tardiness, disruptive talking, disruptive behavior or performing activities not related to the class will be counted as absences. The instructor is NOT responsible for informing absent students what was covered in previous classes, homework or any other announcements.

**Extra Credit**
If an extra credit work is assigned, or extra points are given, the total score should not exceed 100%. No points will be “saved” toward the next examination.

**Cell Phone Use**
Cell phone use is prohibited in any circumstances. Students using their cell phones in class will be asked to leave the class, therefore the student will be counted as absent for that day and 5% deduction for the next exam. If the problem persists, the deduction will increase to 10%.
Laptop Use
Laptops, or any form of a new technology device is **NOT** allowed in the classroom during lecture and exam.

Late or Missed Exam, Homework & Quizzes
There will be no makeup for a missed semester exam or quizzes, unless for special circumstances. There is a **10% penalty** for late homework & Final Submission deadline is **MAY 3rd by 8:00 AM**. There will be **no makeup** for a missed **final exam**. Final exam **must be taken** per schedule.

Participation
Students are encouraged to participate in class discussions and problem-solving skills.

Others
- Students are expected to read the PowerPoints materials in Blackboard, view videos and other multimedia available in MyLabsPlus, and work assignments before the due dates.
- Homework is assigned online regularly through MyLabsPlus that can be accessed at tamucc.mylabsplus.com (you need to buy an access code) and due as specified. If you have problems to access the system you have to let me know as soon as possible.
- Four semester tests will be administered during class times. The dates will be announced in class and posted on Blackboard. These dates may be changed with due notice announced during class time. Bring your own calculators and it cannot be shared. Cell phones cannot be used as calculators.
- The final exam will be a comprehensive examination over all materials covered during the semester. **Absolutely no early final examination, so make travel arrangements accordingly.** Without taking final exam, it will be an “F” for the semester grade regardless.

K. COLLEGE AND UNIVERSITIY POLICIES

- **Academic Integrity (University)**
  University students are expected to conduct themselves in accordance with the highest standards of academic honesty. Academic misconduct for which a student is subject to penalty includes all forms of cheating, such as illicit possession of examinations or examination materials, falsification, forgery, complicity or plagiarism. (Plagiarism is the presentation of the work of another as one’s own work.) In this class, academic misconduct or complicity in an act of academic misconduct on an assignment or test will result in a failing grade.

- **Classroom/Professional Behavior**
  Texas A&M University-Corpus Christi, as an academic community, requires that each individual respect the needs of others to study and learn in a peaceful atmosphere. Under Article III of the Student Code of Conduct, classroom behavior that interferes with either (a) the instructor’s ability to conduct the class or (b) the ability of other students to profit from the instructional program may be considered a breach of the peace and is subject to disciplinary sanction outlined in article VII of the Student Code of Conduct. Students engaging in unacceptable behavior may be instructed to leave the classroom. This prohibition applies to all instructional forums, including classrooms, electronic classrooms, labs, discussion groups, field trips, etc.

- **Statement of Civility**
  Texas A&M University-Corpus Christi has a diverse student population that represents the population of the state. Our goal is to provide you with a high quality educational experience that is free from repression. You are responsible for following the rules of the University, city, state and federal government. We expect that you will behave in a manner that is dignified, respectful and courteous to all people, regardless
of sex, ethnic/racial origin, religious background, sexual orientation or disability. Behaviors that infringe on the rights of another individual will not be tolerated.

- **Deadline for Dropping a Course with a Grade of W (University)**
  I hope that you never find it necessary to drop this or any other class. However, events can sometimes occur that make dropping a course necessary or wise. Please consult with your academic advisor, the Financial Aid Office, and me, before you decide to drop this course. Should dropping the course be the best course of action, you must initiate the process to drop the course by going to the Student Services Center and filling out a course drop form. Just stopping attendance and participation WILL NOT automatically result in your being dropped from the class. Please consult the Academic Calendar ([http://www.tamucc.edu/academics/calendar/](http://www.tamucc.edu/academics/calendar/)) for the last day to drop a course.

- **Grade Appeals (College of Science and Engineering)**
  As stated in University Procedure 13.02.99.C2.01, Student Grade Appeal Procedures, a student who believes that he or she has not been held to appropriate academic standards as outlined in the class syllabus, equitable evaluation procedures, or appropriate grading, may appeal the final grade given in the course. The burden of proof is upon the student to demonstrate the appropriateness of the appeal. A student with a complaint about a grade is encouraged to first discuss the matter with the instructor. For complete details, including the responsibilities of the parties involved in the process and the number of days allowed for completing the steps in the process, see University Procedure 13.02.99.C2.01, Student Grade Appeal Procedures. These documents are accessible through the University Rules website at [http://www.tamucc.edu/provost/university_rules/index.html](http://www.tamucc.edu/provost/university_rules/index.html), and the College of Science and Engineering Grade Appeals webpage at [http://sci.tamucc.edu/students/GradeAppeal.html](http://sci.tamucc.edu/students/GradeAppeal.html). For assistance and/or guidance in the grade appeal process, students may contact the chair or director of the appropriate department or school, the Office of the College of Science and Engineering Dean, or the Office of the Provost.

- **Disability Services**
  The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please call (361) 825-5816 or visit Disability Services in Corpus Christi Hall 116. If you are a returning veteran and are experiencing cognitive and/or physical access issues in the classroom or on campus, please contact the Disability Services office for assistance at (361) 825-5816. [http://disabilityservices.tamucc.edu/](http://disabilityservices.tamucc.edu/)

- **Statement of Academic Continuity**
  In the event of an unforeseen adverse event, such as a major hurricane and classes could not be held on the campus of Texas A&M University–Corpus Christi; this course would continue through the use of Blackboard and/or email. In addition, the syllabus and class activities may be modified to allow continuation of the course. Ideally, University facilities (i.e., emails, web sites, and Blackboard) will be operational within two days of the closing of the physical campus. However, students need to make certain that the course instructor has a primary and a secondary means of contacting each student.

**L. OTHER INFORMATION**
• **Academic Advising**
  The College of Science & Engineering requires that students meet with an Academic Advisor as soon as they are ready to declare a major. The Academic Advisor will set up a degree plan, which must be signed by the student, a faculty mentor, and the department chair. Meetings are by appointment only; advisors do not take walk-ins. Please call or stop by the Advising Center to check availability and schedule an appointment. The College’s Academic Advising Center is located in Center for Instruction 350 or can be reached at (361) 825-3928.

• **GENERAL DISCLAIMER**
  I reserve the right to modify the information, schedule, assignments, deadlines, and course policies in this syllabus if and when necessary. I will announce such changes in a timely manner during regularly scheduled lecture periods.