Precalculus Math 2312 001  
Department of Mathematics and Statistics  
Spring 2020

A. COURSE INFORMATION  
Course number/section: 2312 001  
Class meeting time: MWF: 9:00-9:50  
Class location: CI 107  
Course Website: bb9.tamucc.edu

B. INSTRUCTOR INFORMATION  
Instructor: Archana Krishnagiri  
Office location: CI 351  
Office hours: MW 2-3:15, TTR: 9:30-10:45  
Telephone: 361-825-2430  
e-mail: archana.krishnagiri@tamucc.edu  
Appointments: By-mail

C. COURSE DESCRIPTION  
As suggested by the catalog description (below), this course focuses on algebra and trigonometry concepts underpinning calculus. Topics include data analysis, functions, graphs, limits, trigonometry, exponential & logarithmic functions, other functions, and math modeling. A more rapid treatment of the material in MATH 1314 and MATH 1316, this course is designed for students who wish a review of the above material, or who are very well prepared. Functions, graphs, trigonometry, and analytic geometry.

D. PREREQUISITES AND COREQUISITES  
MATH 1314: College Algebra or placement into MATH 2312

E. REQUIRED TEXTBOOK(S), READINGS AND SUPPLIES  

Plus the MyLabsplus student access code. In addition, you will need a TI-83 calculator. You can get the access code for Mylabsplus either in university book store or online. Link for online homework is www.tamucc.mylabsplus.com.
F. **STUDENT LEARNING OUTCOMES AND ASSESSMENT**

At the end of the course the student should be able to:

- Manipulate basic expressions:
  - multiply and factor polynomials
  - work with rational expressions
  - simplify rational exponents
  - rationalize fractions
- Solve standard equations and inequalities:
  - solve linear equations
  - solve quadratic equations
  - solve absolute value equations
  - solve exponential and logarithmic equations
  - solve trigonometric equations
  - solve systems of linear equations
- Determine features of graphs of functions and circles, create graphs, and transform graphs
  - graph circles whose equation needs to be simplified first
  - determine whether a given graph is the graph of a function
  - graph linear functions
  - recognize the graphs of some basic functions
  - use graphing techniques, such as shifts and stretches
  - determine from a polynomial how its graph will look
  - find axis-intersects for polynomials
  - be able to graph trigonometric functions and their translations
  - Determine if given functions have inverses, find inverse functions, and know properties of standard invertible functions
  - determine from the graph of a function whether it has an inverse
  - check whether two functions are inverses of each other
  - find the equation of the inverse of a function
  - use continuous compounding and exponential functions
  - use logarithms as inverse functions of exponential functions
  - simplify logarithmic expressions
  - graph and find values for the inverse circular

Know and apply the trigonometry of triangles and trigonometric functions and identities convert between degrees and radians

- know the values of the basic trig functions for special angles solve right triangles
- use the circular functions to find coordinates of points on the unit circle
- have the fundamental trigonometric identities memorized
- be able to verify trigonometric identities
- simplify trig expressions using the double angle identities

G. INSTRUCTIONAL METHODS AND ACTIVITIES

Students will be shown models of solutions and will work independently and in groups to demonstrate mastery. Students will use the Mylabsplus software independently to remediate weak areas as designated by assessments. Students will show mastery by passing skill tests and/or the final exam with a 70% on better.

H. MAJOR COURSE REQUIREMENTS AND GRADING

Grades will be calculated according to the following percentages.

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>% of FINAL GRADE</th>
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<tbody>
<tr>
<td>3 Exams</td>
<td>45%</td>
</tr>
<tr>
<td>Final Exam</td>
<td>20%</td>
</tr>
<tr>
<td>Homework</td>
<td>20%</td>
</tr>
<tr>
<td>Quizzes</td>
<td>15%</td>
</tr>
</tbody>
</table>

A = 90% – 100%
B = 80% - 89%
C = 70% - 79%
D = 60% - 69%
F = Below 60%

I. Tentative COURSE CONTENT/SCHEDULE

<table>
<thead>
<tr>
<th>Week</th>
<th>Sections</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Introduction 1.1,1.2</td>
</tr>
<tr>
<td>2</td>
<td>1.4, 1.5,1.7</td>
</tr>
<tr>
<td>3</td>
<td>1.8,2.1,2.2</td>
</tr>
<tr>
<td>4</td>
<td>2.3,2.4,2.5</td>
</tr>
<tr>
<td>5</td>
<td>2.6,2.7,2.8 Exam 1</td>
</tr>
<tr>
<td>6</td>
<td>3.1,3.4,3.5</td>
</tr>
<tr>
<td>7</td>
<td>4.1,4.2</td>
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</table>
Final Exam May 3, 1:45 to 4:30

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 described in Section F.

J. COURSE POLICIES

Attendance/Tardiness
1. I expect each student to attend all classes. Attendance is mandatory by Texas A&M University. Please save absences for emergencies.
2. If you are more than 15 minutes tardy you are considered absent.

Late Work and Make-up Exams
NO MAKEUPS WILL BE GIVEN FOR QUIZZES.
No Make-up for final test
Extra Credit
NONE

Cell Phone Use
Cell phone must be turned off

Laptop Use
laptops, or any form of a new technology device is NOT allowed in the classroom during lecture and exam.

Missed Exam
No make-ups will be given without written evidence of an official University excused absence. For an absence to be considered excused, the student must notify his or her instructor in writing (acknowledged e-mail message is acceptable) prior to the date of absence if such notification is feasible. In cases where advance notification is not feasible (e.g. accident or emergency) the student must provide notification by the end of the second working day after the absence. In the case of illness or injury, students are required to obtain a confirmation note from
a health care professional affirming date and time of a medical office visit regarding the illness or injury.

**K. COLLEGE AND UNIVERSITY 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/) 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, and the College of Science and Engineering Grade Appeals webpage at 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/

* 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.

I. 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.