PRECALCULUS - MATH 2312.003
Department of Mathematics & Statistics
Spring 2016

A. COURSE INFORMATION

Course number/section: MATH 2312.003
Class meeting time: TR 3:30 - 4:45 pm
Class location: CI 107
Course Website: bb9.tamucc.edu
tamucc.mylabsplus.com

B. INSTRUCTOR INFORMATION

Instructor: Melina Wijaya
Office location: CI 351
Office hours: MW 12:30 - 1:45 pm, TR 2 - 3:15 pm, or by an appointment
Telephone: (361) 825-3373
e-mail: melina.wijaya@tamucc.edu
Appointments: Additional times available by appointment

C. COURSE DESCRIPTION

Catalog Course Description
A more rapid treatment of the material in MATH 1314 (College Algebra) and MATH 1316 (Trigonometry), this course is designed for students who wish a review of the above material, or who are well prepared. Functions, graphs, trigonometry, and analytic geometry.

D. PREREQUISITES FOR THE COURSE

Prerequisites
MATH 1314 (College Algebra) or placement into MATH 2312 (Precalculus)

E. REQUIRED TEXTBOOK(S), READINGS AND SUPPLIES

Required Textbook(s)
MyLabsPlus student access code. You will need to purchase it separately at the bookstore or log on to www.tamucc.mylabsplus.com and purchase it online. The technical support line is 1-888-883-1299. The website is www.tamucc.mylabsplus.com. Use your NetID or Island ID for User Name and ask for a password reset.

Optional Textbook(s) or Other References

Supplies
In addition, you will need a graphing calculator. Any graphing calculator other than a TI-Nspire is allowed.
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 courses 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.

By the end of this course, students should be able to:

1. Work with some basic concepts:
   - multiply and factor polynomials
   - work with rational expressions
   - simplify rational exponents
   - rationalize fractions

2. Solve equations and inequalities:
   - solve linear equations
   - solve quadratic equations
   - determine and graph the solution set of an inequality
   - solve absolute value equations
   - solve exponential and logarithmic equations
   - solve trigonometric equations
   - solve systems of linear equations

3. Graph functions and circles:
   - 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

4. Work with inverse functions and polynomials:
   - 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 functions

5. Have a solid base in trigonometry:
   - 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

The instructional method is a combination of lectures and student activities. Students are expected to participate through in-class activities, preparation for class meetings, homework, and quizzes.

H. MAJOR COURSE REQUIREMENTS AND GRADING

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>% of FINAL GRADE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Homework</td>
<td>15%</td>
</tr>
<tr>
<td>Quizzes</td>
<td>15%</td>
</tr>
<tr>
<td>Exams</td>
<td>45%</td>
</tr>
<tr>
<td>Final Exam</td>
<td>25%</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Grading Scale</th>
<th>Grade</th>
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</thead>
<tbody>
<tr>
<td>90-100%</td>
<td>A</td>
</tr>
<tr>
<td>80-89.99%</td>
<td>B</td>
</tr>
<tr>
<td>70-79.99%</td>
<td>C</td>
</tr>
<tr>
<td>60-69.99%</td>
<td>D</td>
</tr>
<tr>
<td>0-59.99%</td>
<td>F</td>
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</tbody>
</table>

Homework (15%) – Homework will be assigned online every Thursday through MyLabsPlus. Homework will be available all semester. However, 3% deduction per day will be applied from problem worked after the due date. At the end of the semester the two lowest homework grades get dropped. Office hours are a great opportunity to ask questions about homework. On-campus free tutoring in the CASA is another way to get help with the homework.

Quizzes (15%) – The weekly quizzes are given online every Thursday through MyLabsPlus. You can take them anytime between midnight and midnight of the Thursday. You have two attempts to do each quiz. The quizzes are similar to the homework but have no help options available. Of course you may not get any help with the quizzes. Missed quizzes cannot be made up, but the lowest two quizzes get dropped at the end of the semester.

Exams (45%) – There will be three exams, which will be given in class. Calculators will be allowed unless otherwise instructed. Exam dates will be announced at least one week in advance. No exam grades get dropped.
Final Exam (25%) – The final exam will be comprehensive.

I. COURSE CONTENT/SCHEDULE

Tentative course schedule:

<table>
<thead>
<tr>
<th>DATE</th>
<th>TOPIC</th>
<th>DATE</th>
<th>TOPIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>January 21</td>
<td>1.1</td>
<td>March 22</td>
<td>4.5, 4.6</td>
</tr>
<tr>
<td>January 26</td>
<td>1.4</td>
<td>March 24</td>
<td>5.2, 5.3</td>
</tr>
<tr>
<td>January 28</td>
<td>2.3, 2.4</td>
<td>March 29</td>
<td>Review</td>
</tr>
<tr>
<td>February 2</td>
<td>2.4, 2.6</td>
<td>March 31</td>
<td>Exam 2 (Section 3.4 - 4.6)</td>
</tr>
<tr>
<td>February 4</td>
<td>2.7</td>
<td>April 5</td>
<td>5.3, 5.4</td>
</tr>
<tr>
<td>February 9</td>
<td>2.8</td>
<td>April 7</td>
<td>6.1, 6.2</td>
</tr>
<tr>
<td>February 11</td>
<td>3.1</td>
<td>April 12</td>
<td>6.2, 6.3</td>
</tr>
<tr>
<td>February 16</td>
<td>Review</td>
<td>April 14</td>
<td>6.4, 6.5</td>
</tr>
<tr>
<td>February 18</td>
<td>Exam 1 (Section 1.1 - 3.1)</td>
<td>April 19</td>
<td>6.5, 6.6</td>
</tr>
<tr>
<td>February 23</td>
<td>3.4</td>
<td>April 21</td>
<td>7.1, 7.2, 7.3, 7.4</td>
</tr>
<tr>
<td>February 25</td>
<td>3.5</td>
<td>April 26</td>
<td>Review</td>
</tr>
<tr>
<td>March 1</td>
<td>4.1</td>
<td>April 28</td>
<td>Exam 3 (Section 5.2 - 6.6)</td>
</tr>
<tr>
<td>March 3</td>
<td>4.2</td>
<td>May 3</td>
<td>7.5, 7.6, 8.1, 8.2</td>
</tr>
<tr>
<td>March 8</td>
<td>4.3</td>
<td>May 6</td>
<td>On Campus Common Final Exam 2 - 4:30 pm</td>
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<tr>
<td>March 10</td>
<td>4.4, 4.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>March 14-18</td>
<td>Spring Break</td>
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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.

IMPORTANT DATES

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
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<tbody>
<tr>
<td>Wednesday, January 20</td>
<td>Classes begin</td>
</tr>
<tr>
<td>Monday-Friday, March 14-18</td>
<td>Spring Break</td>
</tr>
<tr>
<td>Friday, April 8</td>
<td>Last day to drop a class</td>
</tr>
<tr>
<td>Monday, May 2</td>
<td>Last day to withdraw from the University</td>
</tr>
<tr>
<td>Tuesday, May 3</td>
<td>Last day of classes</td>
</tr>
</tbody>
</table>

J. COURSE POLICIES

Attendance/Tardiness

- Attendance will be taken each class.
- For most students attending class is a faster way of learning the material than trying to catch up on missed material solely from the book.
Tardiness is often disruptive to the whole class and is not appreciated. If you are delayed and arrive late for class please do so quietly.

**Cell Phone Use**

- Cell phones and such must be turned off before class.

**Missed Exam**

- If you have to miss an exam, it is your responsibility to contact me no later than the day of the exam. One make-up exam will be scheduled for each exam. Failure to contact me on or before the exam day results in a grade of zero points for the exam.

- Only extreme emergencies or official university business are acceptable reasons to miss exams and documentation will be required. Car trouble, routine doctor’s appointments, family reunions or graduations of siblings etc are not valid reasons to miss exams. If your reason to miss the exam is not a valid one, your exam score is 0 points. Be sure to check before missing an exam whether your reason is acceptable.

- If you miss the date of the final exam you will receive a **ZERO**. There are no make-ups for the final exam. PLAN AHEAD!!

**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 instructors 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)**
The grade of W will be assigned to any student officially dropping a course. Please consult with the instructor before you decide to drop to be sure it is the best thing to do. Just stopping attendance and participation **WILL NOT** automatically result in your being dropped from the class. Should dropping the course be the best course of action, visit the Office of the University Registrar for the Course Drop Form **that must be** submitted. No student is eligible to receive a W without completing the official drop process by this deadline. Please consult the Academic Calendar for the last day to drop a course.

http://www.tamucc.edu/academics/calendar/

• **Grade Appeals 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.

**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.