A. COURSE INFORMATION

Course number/section: MATH 1314.009
Class meeting time: TR 7:00 pm – 8:15 pm
Class location: IH 268
Course Website: bb9.tamucc.edu

B. INSTRUCTOR INFORMATION

Instructor: Dr. George Tintera
Office location: CI 319
Office hours: TR: 10:00 to 11 am and 3:30 to 5:30 pm.
Telephone: 361-825-6028
e-mail: george.tintera@tamucc.edu
Appointments: Taken by email

C. COURSE DESCRIPTION

Catalog Course Description
Quadratic equations, inequalities, graphs, logarithms and exponentials, theory of polynomial equations, systems of equations. Not for Colleges of Liberal Arts or Nursing and Health Sciences; consult advisor for exceptions and approval.

D. PREREQUISITES AND COREQUISITES

TSI College Readiness in mathematics or MATH 0300 or placement into MATH 1314.

E. REQUIRED TEXTBOOK(S), READINGS AND SUPPLIES

The textbook for the class is College Algebra by Lial, Hornsby, and Schneider (12th edition) with the MyLabsplus student access code. In addition, you will need a TI-83 calculator. Link for online homework is www.tamucc.mylabsplus.com.

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. Demonstrate and apply knowledge of properties of functions, including domain and range, operations, compositions, and inverses.

2. Recognize and apply polynomial, rational, radical, exponential and logarithmic functions and solve related equations.

3. Apply graphing techniques.

4. Evaluate all roots of higher degree polynomial and rational functions.

5. Recognize, solve and apply systems of linear equations using matrices

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

Course grades will be based on homework (10%), tests (26%), skills assessments (20%), qualitative assessments (20%) and a final exam (24%).

- **Homework** will be assigned at each class meeting and due. It will be scored for completion.
- **Group/Daily Work** will be based on time spent in class in groups. The purpose of the groups is to increase your active participation in the class. Daily work also includes preparation for class through specific reading assignments.
- **Skills Assessments** will be made 6 times during the semester. They will be brief and scored for mastery. Full credit will be given for a score mastery (90% or more) on that topic. The skills assessments may be repeated twice with 90% of credit if mastery is shown on the second try, and 80% on the third try. See the calendar for a schedule of Skills Assessments and Qualitative Assessments.
- **Qualitative Assessments** will be made 6 times during the semester. While they will involve some calculation or solution of a mathematical problem, most credit will be given for explanations of the work done. Emphasis will be on the verbal description of your solution.
- **Tests** are tentatively scheduled for October 10 (Linear and Quadratic Equations) and November 7 (Other Equations and Inequalities and Functions).
- The **Final Exam** will be held Friday, December 13, 2013 from 11 to 1:30 pm. It will be comprehensive with a variety of question methods, including multiple choice. Plan to be there.

Grading Scale:

<table>
<thead>
<tr>
<th>Grade</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>F</th>
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</thead>
<tbody>
<tr>
<td>Score</td>
<td>90-100%</td>
<td>80-90%</td>
<td>70-80%</td>
<td>60-70%</td>
<td>Below 60%</td>
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I. COURSE CONTENT/SCHEDULE

<table>
<thead>
<tr>
<th>Week of</th>
<th>Tuesday</th>
<th>Thursday</th>
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<tbody>
<tr>
<td>26-Aug</td>
<td>First Day. Review</td>
<td>SA 0, LE&amp;F 1.1, 1.2</td>
</tr>
<tr>
<td>2-Sep</td>
<td>LE&amp;F, 2.3</td>
<td>LE&amp;F (2.4)</td>
</tr>
<tr>
<td>9-Sep</td>
<td>QA0, QE&amp;F 1.4</td>
<td>QE&amp;F 1.5, 3.1</td>
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### Topics for Skills and Qualitative Assessments

**SA 1/QA 1: Linear Equations and Functions (LE&F)**
1. Solve linear equations in one variable. [1.1]
2. Solve formulas for indicated variables. [1.1]
3. Solve applications of linear equations and problems involving linear modeling. [1.2]
4. Graph linear functions. [2.3 & 2.4]
5. Find slope given a description of the line. [2.3 & 2.4]
20. Given an equation, find slope and sketch the graph. [2.3 & 2.4]
21. Find and interpret rate of change. [2.3 & 2.4]

**SA 2/QA 2: Quadratic Equations and Functions (QE&F)**
4. Solve equations using the quadratic formula. [1.4]
5. Solve problems involving quadratic modeling. [1.5 & 3.1]
23. Analyze graphs of functions using transformations. [2.5 & 2.6]
24. Graphs quadratic functions and find vertex (min/max), axis of symmetry, domain and range. [3.1]
25. Solve problems about quadratic models. [1.5 & 3.1]

**SA 3/QA 3: Other Equations and Inequalities (OE&I)**
6. Solve equations with rational expressions. [1.6]
7. Solve equations with radical expressions. [1.6]
8. Solve equations with absolute value expressions. [1.8]
9. Solve polynomial inequalities. [1.7]
10. Solve rational inequalities. [1.7]
11. Solve absolute value inequalities. [1.8]

**SA 4/QA 4: Graphs and Functions (G&F)**
12. Find radius, center, domain and range of the circle and graph it. [2.1]
13. Solve applied problems using distance and midpoint formulas. [2.1]
14. Decide whether a relation defines a function. [2.2]
15. Find domain and range of the function from the graph. [2.2]
16. Find domain of the function from the equation. [2.2]
17. Determine values for which a function is increasing, decreasing and/or constant. [2.2]
26. Decide whether a function is one-to-one. [4.1]
27. Determine whether functions are inverses of each other. [4.1]
28. Use graph to find inverse function values. [4.1]

SA 5/ QA 5: Exponential and Logarithmic Equations and Functions (ELEF)
29. Use the change-of-base theorem. [4.4]
30. Use the product, quotient and power properties of logarithms. [4.3]
31. Solve exponential equations. [4.2 & 4.5]
32. Solve logarithmic equations. [4.3 & 4.5]
33. Use exponential expressions and functions to model and solve real world situations. [4.5 & 4.6]
34. Use logarithmic expressions and functions to model and solve real world situations. [4.4 & 4.5]

SA 6/QA 6: Systems of Equations and Matrices SE&M
35. Set up and solve systems of two equations by substitution, elimination, graphing and Cramer's rule. [5.1, 5.2 & 5.3]
36. Set up and solve systems of three equations by various methods. [5.2 & 5.3]

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 HOMEWORK OR Assessments.
No Make-up for final test

Extra Credit: NONE

Cell Phone Use: Cell phone must be turned off

Missed Exam
No make-ups. Missed exams will receive a score of 0. The low score for all students will be replaced by the appropriate subscore on the final exam for the relevant questions.

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)

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 submitted. No student is eligible to receive a W without completing the official drop process by this deadline. 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.

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.