MATH 2413.004
CALCULUS I
Fall Semester 2011

I. COURSE INFORMATION
1. Meeting Time & Place: TR 5:30 – 6:45 in CI 108
2. Professor: Dr. Diane Denny
3. Office Phone: 825-3485
4. Office Address: CI 313
5. e-mail Address: diane.denny@tamucc.edu
6. Web Page Address: Not applicable.
7. Office Hours:
   MTWR 3:30 – 5:00 PM
   Others by appointment

II. COURSE DESCRIPTION
In this course we will deal with derivatives and integrals of functions in one variable. The course begins with limits, and uses them to define the derivative of a function. Then differentiation rules are discussed, followed by applications of differentiation. Finally, integrals are introduced followed by some applications of integrals.

III. PREREQUISITES FOR THE COURSE
MATH 1314 (College Algebra) and MATH 1316 (Trigonometry), or MATH 2312 (Pre-calculus), or placement beyond MATH 2312.

IV. TEXT and OTHER SUPPLIES REQUIRED
The required textbook for the course is Calculus, Early Transcendentals, 7th edition, by Stewart.

V. STUDENT LEARNING OUTCOMES
At the end of the course the student should be able to:
1. Calculate limits and apply the concept of limits to continuity, derivatives and other contexts.
2. Calculate derivatives of functions in a variety of ways: from the definition, by applying rules to a standard catalog of functions, for implicitly defined functions and for related rates.
3. Interpret derivatives as slopes of tangent lines and instantaneous rates of change. Relate units of a derivative to the units of the dependent and independent variable. Also, find and apply linearizations and differentials of functions.
4. Apply derivatives to optimization of functions, determining geometric features of graphs of functions, and to sketching graphs of functions.
5. Determine whether functions meet hypotheses of theorems and draw appropriate conclusions.
6. Use Riemann sums to approximate areas under curves and estimate accumulations of rates. Also, find anti-derivatives and apply them to evaluate indefinite integrals and, using the Fundamental Theorem of Calculus, to evaluate definite integrals.

VI. INSTRUCTIONAL METHODS AND ACTIVITIES
Methods and activities for instruction include lectures and labs.

VII. EVALUATION AND GRADE ASSIGNMENT
The methods of evaluation are: exams, homework, labs, the gateway test, and a cumulative final exam.

The lab part of the course is graded by the TA and counts for 20% of the course grade. A gateway test on derivatives will be given in the lab (see the lab syllabus). You have three attempts to pass the gateway test. To pass the gateway test you need to have at least 70% of the problems correct, otherwise your score is zero. There is no partial credit on the gateway test. Calculators are not permitted to be used during the gateway test. The gateway test counts for 10% of your grade.

Homework will be assigned every week and is due at the start of class one week after the day the homework was assigned.

The weights of the different parts of the course towards the final grade are:

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Three exams</td>
<td>40%</td>
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<tr>
<td>Homework</td>
<td>10%</td>
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<tr>
<td>Labs</td>
<td>20%</td>
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<tr>
<td>Gateway Test</td>
<td>10%</td>
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<tr>
<td>Final Exam</td>
<td>20%</td>
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Grading Scale:
- A = 90.00 – 100%
- B = 80.00 – 89.99%
- C = 70.00 – 79.99%
- D = 60.00 – 69.99%
- F = below 60%

VIII. TENTATIVE COURSE SCHEDULE

<table>
<thead>
<tr>
<th>Class</th>
<th>Sections</th>
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<tbody>
<tr>
<td>1</td>
<td>1.1, 1.2</td>
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<tr>
<td>2</td>
<td>1.3, 1.4</td>
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<tr>
<td>3</td>
<td>1.5, 1.6</td>
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<tr>
<td>4</td>
<td>2.1, 2.2</td>
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<tr>
<td>5</td>
<td>2.3</td>
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<tr>
<td>6</td>
<td>2.5</td>
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<tr>
<td>7</td>
<td>2.6</td>
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<tr>
<td>8</td>
<td>2.7, 2.8</td>
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IX. CLASS POLICIES

Attendance will be taken each class. If you have to miss an exam, it is your responsibility to contact me no later than the day after the exam. A valid written excuse is required in order to make up a missed exam. Late homework will only be accepted with a valid written excuse, and must be turned in at the start of class on the next class day after the day it was due; otherwise, late homework will not receive any credit.

Academic Integrity/Plagiarism.

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 grade of zero for the assignment or test for each student involved.

Dropping a Class

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 me before you decide to drop to be sure it is the best thing to do. 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. November 4 is the last day to drop a class with an automatic grade of “W” this term.

*Notice to Students with Disabilities: Texas A&M University-Corpus Christi complies with the Americans with Disabilities Act in making reasonable accommodations for qualified students with disabilities. If you suspect that you may have a disability (physical impairment, learning disability, psychiatric disability, etc.), please contact the Services for Students with Disabilities Office, located in Driftwood 101, at 825-5816. If you need disability accommodations in this class, please see me as soon as possible.

** Grade Appeal Process. As stated in University Rule 13.02.99.C2, Student Grade Appeals, 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 Rule 13.02.99.C2, Student Grade Appeals, and University Procedure 13.02.99.C2.01, Student Grade Appeal Procedures. These documents are accessible through the University Rules Web site at http://www.tamucc.edu/provost/university rules/index.html. For assistance and/or guidance in the grade appeal process, students may contact the Office of Student Affairs.