First Day Handout for Students
MATH 2413 Calculus I – Fall 2012

Sections & Synonyms
020 (14503) 10:55 – 12:40 TT

Room
PIN 606

Instructor
Vicki Payne, Ph.D.

Office
PIN 1021

Office Phone
512.223.8178

Office Hours
MW 8 – 10:55; 12:40 – 1:30; 2:50 – 3
Thursday only 4 - 5

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Web Page
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The best way to communicate with me is by email.
Check my web site for first-day handouts, assignments, my schedule, answers to worksheets, announcements, etc.

COURSE DESCRIPTION
MATH 2413 CALCULUS I (4-4-0). A standard first course in calculus. Topics include inequalities; functions; limits; continuity; the derivative; differentiation of algebraic functions and trigonometric functions; Newton's method; applications of the derivative; the integral; integration of algebraic functions and the sine and cosine functions; numerical integration; and applications of the integral. Prerequisites: MATH 2412 with C or better or equivalent. Another option is an appropriate secondary school course (one year of precalculus or the equivalent, including trigonometry, with a B or better) and a satisfactory entrance score on the ACC Mathematics Assessment Test.

REQUIRED TEXTS/MATERIALS
Required Text

Required Technology
You must have access to technology which enables you to (1) Graph a function, (2) find the zeroes of a function. Because I'm familiar with the TI family of graphing calculators, TI calculators are highly recommended for student use. Other calculator brands can also be used, but TI-89 calculators and other brands that have features that produce exact solutions are not allowed. Graphing calculators may be used to demonstrate concepts and check solutions to many types of problems, but you are required to work each problem using good notation.

Optional Materials

COURSE RATIONALE
This course is the first course in the traditional calculus sequence for mathematics, science and engineering students. It is part of what could be a four-semester sequence in calculus courses. The approach allows the use of technology and the rule of four (topics are presented geometrically, numerically, algebraically, and verbally) to focus on conceptual understanding. At the same time, it retains the strength of the traditional calculus by exposing the students to the rigor of proofs and the full variety of traditional topics: limits, continuity, derivative, applications of the derivative, and an introduction to the definite integral.

COURSE EVALUATION/GRADING SCHEME
• Homework will be collected weekly and one or more problems will be graded. No late homework will be accepted but at least three (3) homework grades will be dropped.
• There will be four (4) exams and an optional comprehensive final exam. The final exam will be given in class during the last scheduled class meeting and may replace ONE low or missed exam or homework
average. Each exam, the final, and the homework average will count equally. **There may be a problem from previous exams on exams after the first exam.**

**INSTRUCTIONAL METHODOLOGY** This course is taught in the classroom primarily as a lecture/discussion course.

**COURSE POLICIES**

**Missed exam policy** The comprehensive final exam grade may replace one low or missed exam grade.

**Late work policy** No late work will be accepted.

**Class participation expectations** Each student is expected to participate in all course activities.

**Reinstatement Policy** If a student is withdrawn from the course, that student will not be reinstated.

**Attendance Policy** Students with excessive absences WILL NOT be dropped by the instructor. It is the student's responsibility to initiate all withdrawals in this course. **Students who stop attending and do not withdraw will receive an F.**

**Withdrawal Policy** It is the student's responsibility to initiate all withdrawals in this course. The instructor may withdraw students for excessive absences (4) but makes no commitment to do this for the student. After the last day to withdraw, **Monday, November 26, 2012**, neither the student nor the instructor may initiate a withdrawal.

**Incomplete Grade Policy** Incomplete grades (I) will be given only in very rare circumstances. Generally, to receive a grade of "I", a student must have taken all examinations, be passing, and after the last date to withdraw, have a personal tragedy occur which prevents course completion.

**COMMON COURSE OBJECTIVES** Common course objectives should be included. They can be found at: [http://www2.austin.cc.tx.us/mthdept2/tfcourses/obj2413.htm](http://www2.austin.cc.tx.us/mthdept2/tfcourses/obj2413.htm)

**COURSE-SPECIFIC SUPPORT SERVICES** Sometimes sections of MATH 0187 (1-0-2) are offered. This lab is designed for students currently registered in Calculus I MATH 2413. It offers individualized and group setting to provide additional practice and explanation. This course is not for college-level credit. Repeatable up to two credit hours.

**LEARNING LABS** ACC main campuses have Learning Labs which offer free first-come first-serve tutoring in mathematics courses. The locations, contact information and hours of availability of the Learning Labs are posted at: [http://www.austincc.edu/tutor](http://www.austincc.edu/tutor). The Learning Lab at the Pinnacle campus is in room PIN 600.

**SUGGESTED CALENDAR** 16-Week Semester

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<th>16-Week Semester</th>
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<tr>
<td>Week 1</td>
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<td>Week 3</td>
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<td>Week 4</td>
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<td>Week 5</td>
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<td>Week 6</td>
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<tr>
<td>Week 8</td>
<td>3.5, 3.6, 3.7</td>
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**Please note:** schedule changes may occur during the semester. Any changes will be announced in class.