

First Day Handout for Students

MATH 2414 Calculus II – Spring 2012

Section & Synonym	Time	Room
011 (46958)	8:35 – 10:20 TTh	PIN 606

Instructor Vicki Payne, Ph.D.
Office PIN 1021

Office Hours
MW 8:00 – 12
TH 10:20 – 10:55, 12:40 – 1:50
Thursday only 3:30 – 5
Other times by appointment.

Office Phone 512.223.8178

E-mail vpayne@austincc.edu
Web Page: www.austincc.edu/vpayne

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 2414 Calculus II (4-4-0). A standard second course in calculus. Topics include integration of elementary functions; techniques of integration; integrals with infinite limits of integration; integrals of discontinuous integrands; applications of the definite integral; an introduction to differential equations; infinite series; and other applications of integrals. Prerequisites: MATH 2413 with a C or better or the equivalent. (MTH 1864)

TEXT AND OPTIONAL MATERIALS

REQUIRED Textbook *Calculus, Concepts and Contexts*, 3rd edition, Stewart, Brooks Cole, 2005
(Single-variable version has all the material for Calculus II, but not for Calculus III. Students should buy the full version if they intend to take Calculus III.)

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 Supplemental Material for Students: *Student Solution Manual*

COURSE RATIONALE

This course is the second 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: integration, techniques of integration, applications of integration, and infinite series.

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, April 23, 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

The objectives of Calculus II are for the students to understand the following topics and to be able to apply these concepts to solve application problems. Calculus II covers: techniques of integration: substitutions, integration by parts, partial fraction decomposition and the use of integration tables. The course also includes:

1. Numerical integration techniques.
2. Improper integrals.
3. Applications of integration: areas, volumes, arc length and other applications.
4. Introduction to differential equations: slope fields, Euler's method and separation of variables.
5. Convergence or divergence of sequences and series.
6. Power series, their interval of convergence and their applications.

Course Objectives are also listed at: <http://www.austincc.edu/mthdept2/tfcourses/obj2414.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>. The Learning Lab at the Pinnacle campus is in room PIN 600.

STATEMENT ON STUDENTS WITH DISABILITIES

Instructors are encouraged to add a statement about the letter of accommodation such as:

"Students who are requesting accommodation must provide the instructor with a letter of accommodation from the Office of Students with Disabilities (OSD) at the beginning of the semester. Accommodations can only be made after the instructor receives the letter of accommodation from OSD."

STATEMENT ON SCHOLASTIC DISHONESTY

Acts prohibited by the college for which discipline may be administered include scholastic dishonesty, including, but not limited to, cheating on an exam or quiz, plagiarizing, and unauthorized collaboration with another in preparing outside work. Academic work submitted by students shall be the result of their thought, work, research or self-expression. Academic work is defined as, but not limited to, tests or quizzes (whether taken electronically or on paper), projects (either individual or group), classroom presentations; and homework.

Students who violate the rules concerning scholastic dishonesty will be assessed an academic penalty that the instructor determines is in keeping with the seriousness of the offense. This academic penalty may range from a grade penalty on the particular assignment to an overall grade penalty in the course, including possibly an F in the course. ACC's policy can be found in the Student Handbook page 33 or on the web at:

http://www.austincc.edu/marketng/handbook/student_handbook_02-03.pdf.

STATEMENT ON STUDENT DISCIPLINE

Classroom behavior should support and enhance learning. **Please turn off cell phones while in class and limit leaving class unless it's an emergency.** Behavior that disrupts the learning process will be dealt with appropriately, which may include having the student leave class for the rest of that day. In serious cases, disruptive behavior may lead to a student being withdrawn from the class. ACC's policy on student discipline can be found in the Student Handbook page 32 or on the web at:

http://www.austincc.edu/marketng/handbook/student_handbook_02-03.pdf.

STATEMENT ON STUDENTS WITH DISABILITIES

Each ACC campus offers support services for students with documented physical or psychological disabilities. Students with disabilities must request reasonable accommodations through the Office of Students with Disabilities on the campus where they expect to take the majority of their classes. Students are encouraged to do this three weeks before the start of the semester.

Students who are requesting accommodation must provide the instructor with a letter of accommodation from the Office of Students with Disabilities (OSD) at the beginning of the semester. Accommodations can only be made after the instructor receives the letter of accommodation from OSD.

STATEMENT ON ACADEMIC FREEDOM

Institutions of higher education are conducted for the common good. The common good depends upon a search for truth and upon free expression. In this course the professor and students shall strive to protect free inquiry and the open exchange of facts, ideas, and opinions. Students are free to take exception to views offered in this course and to reserve judgment about debatable issues. Grades will not be affected by personal views. With this freedom comes the responsibility of civility and a respect for a diversity of ideas and opinions. This means that students must take turns speaking, listen to others speak without interruption, and refrain from name-calling or other personal attacks.

TESTING CENTER POLICY ACC Testing Center policies can be found at: <http://www.austincc.edu/testctr/>.

While exams are scheduled to be given in class, the Testing Center may be used for one exam when time is needed in class. You must have an ACC photo ID to take an exam in the Testing Center.

STUDENT SERVICES The web address for student services is: <http://www.austincc.edu/support>

The ACC student handbook can be found at: <http://www.austincc.edu/handbook>

SUGGESTED CALENDAR 16-Week Semester

16-Week	
Week 1: Review of selected topics from 4.8 to 5.4	Week 9: 7.1, 7.2
Week 2: 5.5,5.6	Week 10: finish 7.2,7.3
Week 3: 5.7,5.8, begin 5.9	Week 11: 7.4, 7.5(optional),8.1
Week 4: finish 5.9,5.10	Week 12: 8.2, 8.3
Week 5: 6.1, Appendix H.1	Week 13: 8.4, 8.5
Week 6: 6.2, 6.3, 6.4	Week 14: 8.6, 8.7
Week 7: Appendix H.2, 6.5	Week 15: 8.8
Week 8: 6.6, 6.8	Week 16: Final Exam

Please note: Schedule changes may occur during the semester. Any changes will be announced in class.