## Math 1132Q - Section 13 - Calculus 2

**Instructor:** John Haga

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**Textbook:** *Calculus, Early Transcendentals, Volume 2.* James Stewart, 6th ed. (with WebAssign code).

**Course Website:** http://www.math.uconn.edu/~haga/math1132s09/index.html

**Office Hours:**

The following office hours will be held in my office, MSB-230.

Monday 2:30pm-3:30pm
Wednesday 3:30pm-4:30pm

I will also be in the Q-Center, from 11am-12pm on Thursdays.

**Grading Policies.** Course grades will be based on understanding of the subject material. This understanding will be evaluated in the following way:

| | |
|---|---|
| Homework: | 20% |
| Quizzes: | 5% |
| First Hour Exam: | 20% |
| Second Hour Exam: | 20% |
| Final Exam: | 35% |
| Gateway Exam: | 0% |

Please notice that outside factors, including any need for a certain grade for admission/retention in any academic program, scholarship or transfer credit, graduation requirements or personal desire for a specific grade DO NOT appear in the above listing, and as such are not considered in any way in the determination of your course grade. Effort, improvement, class attendance and participation will all dramatically improve your grade in the course in that they will allow you to do well on quizzes, exams, and the final exam. They will NOT, however, actively participate in the calculation of your course grade. No low grades will be dropped in the calculation of your course grade. Additionally, incompletes will not be given to students who are dissatisfied with their grades at the end of the semester.

**Homework.** You will need a login ID and password from your instructor plus a WebAssign code to register online. A link to WebAssign can be found on the class web page. Your login information will be set to an initial default:

| | |
|---|---|
| Username: | firstname.lastname (lower case) |
| Password: | firstname.lastname (lower case) |
| Institution: | uconn (lower case) |

Change your password immediately by going to"My Options". You can get help using WebAssign from your instructor or at the Q-Center. There will be homework assignments for each section of the text. Each assignment will be made available on WebAssign several days before the section is covered in class. The due date for each assignment will be set by your instructor and will generally be a couple of days afterthe material is covered in class. You will get 5 attempts to answer each

question. After each attempt you will be told whether your answer is correct or not. Full solutions will be available on WebAssign after the due date. If you are not able to get the correct answer after two or three attempts, we recommend that you seek help from your instructor, the Q-Center, a tutor, or another student.

**Extensions.** If a student does not complete a homework assignment on WebAssign by the specified due date, they are permitted to request an extension ONLY if:

(a) the request is made in MSB room 230,

(b) the student has not downloaded the answer key prior to the request and

(c) the request is made no later than one week after the original due date.

Extensions will be granted only if students can present documentation citing a reasonable excuse warranting an extension. ONCE per semester, each student may be granted a homework extension without question.

**Quizzes.** Quizzes will be administered regularly. They will serve primarily to let you know whether or not you are prepared for exams. Quizzes may or may not be announced. If a student misses a quiz, they may request to be excused from the quiz if

(a) they make the request during scheduled office hours and

(b) they present official documentation warranting such an excuse (no student will be excused from any work without providing documentation).

Quizzes cannot be made up.

**The Gateway Exam.** Every student enrolled in Math 1132Q must take the Gateway exam. The Gateway exam will be available in the Mathematics MacLab (MSB 203) on WebAssign beginning around March 3. There will be an open period from March 3 through April 7 during which the Gateway exam may be repeated (as often as needed) in the Mac Lab. Practice versions of the Gateway exam may be taken online from WebAssign. These practice versions are from the same test bank as the actual exams and will be graded online. Any students who do not pass the Gateway exam by April 7 will incur a 10 point deduction on their final course grade (as per departmental policy).

**Exams.** There will be two in-class midterm exams given on the following days:

| | | | |
|---|---|---|---|
| Midterm Exam 1 | Tuesday February 24, 2009 | 6:00-8:00PM | PB-38 |
| Midterm Exam 2 | Tuesday April 7, 2009 | 6:00-8:00PM | PB-38 |

Notice that these exams will be given in PB-38, which is not our usual classroom.

**Exam Make-ups.** Common midterm exam make-up sessions will be held from 8PM-10PM on the date of the midterm. A missed midterm can only be made up with the permission of the instructor. A missed final exam can only be made up with the permission of the Dean of Students and only at the designated time.

**Course Policies.**

- The use of a calculator on exams and quizzes is permitted. During class, you may not use any electronics of any other kind (this includes cell phones and MP3 players). During class, you may not use the calculator for any purpose not directly related to the work being done in class. You may be required to submit your calculator for inspection and erase data/programs from your calculator.
- You are not permitted to read anything during class other than material directly related to the class.
- You are not permitted to talk in class unless you receive permission from the instructor. Students who, during class, engage in conversation or any other distracting behavior may be excused from the lecture.
- Your instructor reserves the right to retain a photocopy of any work submitted.

**Responsibility.** I reserve the right to change this syllabus as needed. Any change will be noted in class. As long as you are enrolled in this course, I have the right to assume that you will attend class. If you cannot attend for some reason, it is your responsibility to find out what work or announcements you missed. I will not be calling or e-mailing students to inform them of a change in policity nor will I exempt someone from a quiz or other work because he or she did not attend class the day it was announced. Please make sure that your Huskymail accounts are active and functional: I will frequently use e-mail to make mass announcements. If you use a different e-mail address you must e-mail me from that account and I will add you to the course mailing list.

**Academic Misconduct.** The official definition of academic misconduct can be found in the Student Code, which can be found at http://www.dosa.uconn.edu/. Cheating at the University of Connecticut is dealt with harshly and can result in one or more of the following: a score of zero on the exam, quiz, or assignment in question; a grade of F for the course; expulsion from the university and/or any subsidiary programs.

Updated: 2/2/2009

**Below is a list of some topics which you should be familiar with and will need to understand in order to do well in this course.**
It is assumed that you understand the topics listed. (This list is NOT comprehensive).

Basic Algebra (involving exponentials and logarithms)
Trigonometric Functions and Trigonometric Identities
Concept and Formal Definition of a Limit
Computations of Limits
Definition of Continuity and Recognizing Continuous/Discontinuous Functions
Limits Involving Infinity
Tangent Lines
Concept and Formal Definition of a Derivative
Power Rule for Derivatives
Product and Quotient Rules
Derivatives of Common Functions (Trigonometric, Exponential and Logarithmic Functions)
The Chain Rule
Implicit Differentiation
Local and Absolute Maxima and Minima of Functions
Increasing and Decreasing Functions
Concavity
Antiderivatives
Sums and Sigma Notation
Relationship Between Integration and Area
Concept and Formal Definition of Definite Integral
The Fundamental Theorem of Calculus
Integration by Substitution

**Tentative Course Schedule:**

| Week | Date | Sections | Topics |
|---|---|---|---|
| 1 | Jan. 20, 22 | 5.1-5.5, Appendix G | Review, The Logarithm Defined as an Integral. |
| 2 | Jan. 27, 29 | 6.1-6.3 | Areas Between Curves, Volumes,<br>Volumes by Cylindrical Shells |
| 3 | Feb. 3, 5 | 6.4-6.5, 7.1 | Work, Average Value, Integration by Parts |
| 4 | Feb. 10, 12 | 7.2-7.4 | Trigonometric Integrals, Trigonometric Substitutions,<br>Partial Fractions |
| 5 | Feb. 17, 19 | 7.7-7.8 | Approximate Integrals, Improper Integrals |
| 6 | Feb. 24<br>Feb. 27 | Exam<br>8.1-8.2 | Review (3:30PM-4:30PM), Exam 1 (6PM-8PM)<br>Arc Length, Area of Surface of Revolution |
| 7 | Mar. 3, 5 | 8.3, 9.1-9.2 | Applications, Modeling with Differential Equations,<br>Euler's Method |
| | March 10, 12 | | No Class (Spring Break) |
| 8 | Mar. 17, 19 | 9.3-9.4, 10.1 | Separable Equations Exponential Growth and Decay<br>Curves Defined by Parametric Equations |
| 9 | Mar. 24, 26 | 10.2-10.4 | Calculus with Parametric Curves, Polar Coordinates<br>Arc Lengths in Polar Coordinates |
| 10 | Mar. 31, Apr. 2 | Appendix H, 11.1 | Complex Numbers, Sequences |
| 11 | Apr. 7<br>Apr. 9 | Exam<br>11.2-11.3 | Review (3:30PM-4:30PM), Exam 2 (6PM-8PM)<br>Series, Integral Test |
| 12 | Apr. 14, 16 | 11.4-11.6 | Comparison Tests, Alternating Series, Ratio Tests |
| 13 | Apr. 21, 23 | 11.7-11.9 | Root Tests, Power Series,<br>Representation of Functions as Power Series |
| 14 | Apr. 28, 30 | 11.10,11.12 | Taylor Series, Applications |