

Classroom: Lecture Tues/Thurs 6:00-7:20 pm in PKH 321
Lab Tues/Thurs 7:30-8:20 pm in PKH 308 or in pc lab = PKH 315.

Office etc: PKH 462, 817-272-3932, vancliff@uta.edu

Web page: <http://www.uta.edu/math/vancliff/T/S09>

My Office Hours: Tues & Thurs 5:20-5:50 pm in PKH 462, or by appointment

GTA: Christina Holdiness, PKH 406 (817-272-0939), christina.holdiness@mavs.uta.edu

GTA Office Hours: Tues 4:50-5:50 pm in PKH 406 & Thurs 8:20-9:20 pm in classroom or PKH 406, or by appointment (check website for current schedule)

Textbook: Thomas' Calculus, Early Transcendentals, 11th Ed., Media Upgrade, Addison-Wesley (required).

Textbook website: <http://www.coursecompass.com> See page 2 of handout "Sources for Help" for more information.

Calculator: on tests/quizzes, only the TI-30XA or TI-30XIIS are allowed; the latter is on the current list of calculators allowed for the professional engineering examinations.

- Tests:
- a short quiz on most Tuesdays in lab;
 - two comprehensive departmental **midterms** on Friday Feb 13 & on Friday Mar 27, both 6:00-8:00 pm (rooms to be announced);
 - one comprehensive **Final** departmental examination on Sat May 9, 3:00-5:30 pm (room to be announced).

Each midterm and the Final will be approximately half multiple-choice questions and half show-work questions.

Make a note of these dates!! Bring photo ID to all tests.

Weighting: graded assignments = 10% total, Quizzes = 10% total,
Midterm 1 = 20%, Midterm 2 = 25%, Final = 35%.

Your lowest 3 quiz grades will NOT be used to compute your course grade.

The grading scale on the midterms & Final will be:

90-100 = A, 80-89 = B, 70-79 = C, 60-69 = D, 0-59 = F.

Scoring below 50 on the Final will prevent you from earning a grade of C or higher in the course.

Attendance and participation are also considered in computing your course grade (e.g., if a student's grade is borderline between one grade and another). Attendance will be recorded from approximately Jan 27 onwards. Most of the assignments/quizzes will be graded by the GTA; the tests will be graded by instructors of Math 1426.

Important Dates: Wed Feb 4 = Census Date
Wed Feb 4 = deadline to request make-up test from Dr. Krueger (see page 3),
Mar 16-20 = Spring Break,
Fri April 3 = last day to drop course with W (see page 4),
Thurs May 7 = last class,
test dates given above.

EXPECTED LEARNING OUTCOMES

Upon completion of Honr/Math 1426, students should be able to perform various tasks with algebraic, trigonometric and transcendental functions, including (but not limited to) the tasks outlined below:

1. compute the limit of various functions without the aid of a calculator;
2. compute derivatives and differentials of various functions without the aid of a calculator, and interpret certain limits as derivatives; compute derivatives and differentials using differentiation techniques such as chain rule, implicit differentiation and logarithmic differentiation;
3. find the equation of the tangent line to the graph of a function at a point by using the derivative of the function, and estimate the value of a function at a point using a tangent line near that point;
4. sketch the graphs of functions by finding, and using, first-order and second-order critical points, extrema, and inflection points;
5. solve word problems involving the rate of change of a quantity or of related quantities, solve optimization problems in the context of real-life situations by using differentiation and critical points of functions. The problem topics include (but are not limited to) population dynamics, finance, physics, biology, chemistry and sociology.
6. Students will compute the area below the graph of a function by using a limit of a Riemann sum and/or by using a definite integral, and
7. compute certain antiderivatives using various antidifferentiation techniques such as integration by substitution, and apply the Fundamental Theorems of Calculus to compute derivatives, antiderivatives, definite integrals and area.
8. Students will be able to justify and explain their steps in problem solving. In particular, students will be able to construct correct and detailed mathematical arguments to justify their claimed solutions to problems.

COURSE STRUCTURE

The main goal of this course is to teach you about rates of change in many guises and to enable you to develop problem-solving skills. We will cover most of Chapters 2-5. I will assign reading from the book to do at home. There will be A LOT of homework assigned. It is highly possible that questions from the homework or from the assignments could appear on the tests/quizzes.

In most Thursday labs, you will be given a worksheet or a computer assignment. In most Tuesday labs, you will be given a short quiz and the rest of the time will be available for you to ask questions of the GTA. Conceivably, there could be a few weeks in which the schedule will vary from that described here.

HELP OUTSIDE CLASS TIME

My office hours & the GTA's office hours are given above. These are times when we will be available to discuss the material/homework/tests. No appointment is necessary for those times. If, however, those times are inconvenient for you, then make an appointment for another time (e.g., e-mail me stating the times you prefer).

For other source of help outside class, consult the handout "Sources for Help".

My web page will list the homework and our progress through the material as the semester progresses, and the material for the next quiz, as well as other miscellaneous information pertinent to this course. My web-page address is above.

HOW TO DO WELL IN THIS COURSE

The best way to guarantee a good grade in this course is to take good lecture notes and to read them over after class, and to do ALL the assignments on a regular basis (this is your *brain exercise!*) and to discuss the material with each other. After completing any one assignment, put together a list of the ideas you have learned in doing that assignment; keep your list as help when you study for the tests. Follow the study techniques that will be described to you on the worksheets. Use all the resources available to you: instructor, GTA, textbook, textbook's website, math clinic, etc as described above and on the handout "Sources for Help". **You are expected to spend at least 8 hours/week on this course outside class time.**

DISABILITY ACCOMMODATIONS

The University of Texas at Arlington is on record as being committed to both the spirit and letter of federal equal opportunity legislation; reference Public Law 93112 — The Rehabilitation Act of 1973 as amended. With the passage of the Americans with Disabilities Act (ADA), pursuant to Section 504 of the Rehabilitation Act, there is renewed focus on providing this portion of the population with the same opportunities enjoyed by all US citizens. In particular, students in this situation who desire accommodation should **notify me informally this week**, and notify the Disabilities Office as soon as possible with official authorized documentation; the Disabilities Office will give you documentation that will authorize me and the course coordinator to provide accommodation and inform us of the nature of the accommodation.

CONFLICT WITH EXAMINATION DATES

Students who miss tests due to UNauthorized reasons will NOT be accommodated.

Up to 3 missed quizzes (even for authorized reasons) will not be "made-up", but will count as one of the 3 lowest grades that are not computed towards your course grade. If you miss more than 3 quizzes, official documentation validating authorized reasons for missing ALL the missed quizzes must be presented for any accommodation to be considered.

If you have a conflict with a midterm or the Final you should contact the course coordinator (Dr. Krueger) no later than Census Date (Feb 4), by using a form attached to the coordinator's office door (PKH 448) and submitting it together with necessary documentation as indicated on the form. You may also contact the coordinator by e-mail (krueger@uta.edu) no later than Feb 4. Do not assume that your e-mail has been received if there is no response from the coordinator. If a conflict arises after Feb 4, contact the coordinator immediately. **Delays in submitting a request for a make-up test may mean that your request cannot be approved.** Also, inform me if you submit such a request to the coordinator.

If you miss a midterm or the Final for an authorized reason which can be verified with official documentation (e.g., hospitalization), then contact me and the course coordinator as soon as possible.

DISTRACTION IN THE 21ST CENTURY!!

Cellular phones should be SWITCHED OFF during all classes & all tests. Cellular-phone use is not permitted in class. If you NEED to use your cellular phone for an URGENT reason during class, you may leave the room to talk & return to class when you are done. If you leave class for a nonurgent reason, the class & I prefer that you do not return, & I will subtract your name from the attendance sheet. During tests, your cellular phone should be out of sight. If you need to use your cellular phone for any reason during a test, then you may leave the room to talk, but **you will not be able to continue the test.**

The University reserves the right to impose disciplinary action for any kind of infraction of University policies. Engagement in conduct which disrupts, obstructs or interferes with activities authorized by the University will result in disciplinary action against the perpetrator(s). Such action includes leaving and returning to the room frequently.

SCHOLARLY INTEGRITY

It is the philosophy of The University of Texas at Arlington that academic dishonesty is a completely unacceptable mode of conduct and will not be tolerated in any form. All persons involved in academic dishonesty will be disciplined in accordance with University regulations and procedures. Discipline includes suspension or expulsion from the University and a grade of FAIL in the class given to involved student(s). Part One, Chapter VI, Section 3, Subsection 3.2, Subdivision 3.22 of the Regents' Rules and Regulations states the following. "Scholastic dishonesty includes, but is not limited to, cheating, plagiarism, collusion, the submission for credit of any work or material that are attributable in whole or in part to another person, taking an examination for another person, any act designed to give unfair advantage to a student or the attempt to commit such acts".

Photo-ID is REQUIRED at all tests. The University has informed all its faculty that steps should be taken to discourage cheating on tests. As such I will uphold the following during the tests:

- if you wish to leave the room during a test, you should ask permission first and turn in your test to me — only in exceptional circumstances will I let you continue the test should you return (so it is better to be 3 minutes late to the test, rather than ask to go to the restroom during the test);
- if you finish a test early but prefer to stay in the room, then you should NOT get out any work, book nor item, no matter what the subject matter is.

Remember, in any test, keep your eyes on your own work only.

DROP POLICY

The last day this semester to drop a course is Friday April 3 at 5 pm. Any student who drops the course on or before April 3 will receive a W. **Students must contact an advisor in their major in order to drop a course.**

TUITION NONPAYMENT

If you are dropped from this class for non-payment of tuition, you may secure an Enrollment Loan through the Bursar's Office.

GRADE-REPLACEMENT & GRADE EXCLUSION POLICIES

These policies are described in detail in the University catalog and can also be found online at <http://www.uta.edu/catalog/general/academicreg>. The deadline for filing a grade replacement request is Census Date, Feb 4.

First week's homework:

1/20 Do pg 62/3: 1, 2, 4, 19, 21, 25, 29-32. Do pg 64/5: 4, 16, 21, 27.
 Read lecture notes and read Sec 2.1 (textbook's website has videos)
 Do Sec 2.1: 30, 32, 36(a) & finish Worksheet 0.

1/22 Do Sec 2.1: 1-4, 9, 10, 12, 16-18, 36(b) & finish Worksheet 1.
 Reread lecture notes from this week. Submit Worksheet 1 on Tues Jan 27.

Quiz 1 on Tues 1/27: college algebra, functional notation, Worksheets 0 & 1 and Sec 2.1.