

GENERAL INFORMATION

SECTION 001	Pickard Hall Room 309	9:30 – 10:50 am Tu Th
LAB SECTION 002	Pickard Hall Room 105	11:00 – 11:50 am Mo We
LAB SECTION 003	Pickard Hall Room 105	1:00 – 1:50 pm Mo We

STUDENTS ENROLLING IN MATH 1426-001 MUST ENROLL IN LAB SECTION 002 OR 003

INSTRUCTOR: Dr. Hua Shan Telephone: 817-272-5685
 Office: 452 PKH E-mail: hshan@uta.edu
 Web page: <http://www.uta.edu/faculty/hshan/home/home.html>
 Office Hours: 2:00–3:00pm Mo We, or by appointment

REQUIRED TEXT BOOK:

Thomas' Calculus, by Weir, Hass, and Giordano, 11th edition.
 Addison Wesley

COURSE OUTLINE: 2.1-2.7(2.3), 3.1-3.10, 4.1-4.8 (4.7), 5.1-5.6

CALCULATOR:

On the midterms and final, you will be allowed to use nonprogrammable calculators with basic computational features, such as arithmetic and transcendental functions. Calculators with the following features are **NOT** allowed: graphing, equation solving, differentiation and integration. Any device that has internet or e-mail capabilities – this includes cell phones - and any device with a QWERTY keyboard are also not permitted. There are many such inexpensive (less than \$20) calculators available, both at the UTA bookstore and at local retail outlets. Two that are recommended are TI-30XA and TI-30XIIS; the latter is on the current list of calculators allowed for the professional engineering exams.

PROCEDURE:

Material will be covered by lectures, not necessarily restricted to the text and handouts. Students are expected to read text and/or other assignments thoroughly.

EXAMINATIONS: (Any change will be announced in class prior to the exams)

- Weekly 10-minute **Quizzes** in the lab sections on Monday.
- Two **Midterms**:
 Midterm 1: 6:00 pm - 8:00 pm on Friday, February 13.
 Midterm 2: 6:00 pm - 8:00 pm on Friday, March 27.
- One **Final Exam** 3:00 pm - 5:30 pm on Saturday, May. 9.

The midterm and final exams are departmental, i.e., all sections of Math 1426 will take the same exam and the grades will have the same weight in each section. All of these exams are comprehensive. The format of each exam will be approximately half multiple choice problems and half show-your-work problems.

Make-up Policy: If you have a conflict with either midterm or final, you must contact the course coordinator no later than **Census Date (February 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 February 4. Do not assume that your e-mail has been received if there is no response from the coordinator. If a conflict arises after February 4, contact the coordinator immediately. **Delays in submitting a make-up request may mean that your request cannot be approved.**

Any missed quiz will count as one of the 3 lowest quiz grades. If you miss more than three quizzes, official documentation for all the missed quizzes must be presented for any accommodation to be considered.

PERFORMANCE EVALUATION:

Material covered on the tests will include handouts, lecture notes and outside readings. All work must be your own.

Midterm 1	20%
Midterm 2	25%
Final examination	35%
Problem-solving assignments & Computer labs	10%
Quizzes	10%

Grading scale: 90 – 100: A; 80 – 89: B; 70 – 79: C; 60 – 69: D; < 60: F;

A grade of “F” will be assigned for any work which is clearly not your own or cheating of any type. The TA will grade the problem-solving assignments, computer lab reports, and quizzes. The grading of the midterm and the final exams is shared amongst all 1426 instructors. Your lowest three (3) quiz grades will not be used to compute your course grade.

Any student who scores below 50 on the final exam cannot receive a grade higher than D in the course.

HOMEWORK ASSIGNMENTS:

All assignments should be done neatly and in a professional manner. The problem should be defined, diagrammed (if appropriate), and the solution should be developed in a step-by-step procedure. The best way to guarantee a good grade in this class is to do ALL the assignments on a regular basis. You are encouraged to work together in study groups; however, identical (copied) homework will be awarded a grade of zero (0). The assignments you need to turn in include problem-solving assignments (worksheets) and computer lab reports.

EXPECTED LEARNING OUTCOMES:

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

1. Students will be able to compute the limit of various functions without the aid of a calculator.
2. Students will be able to compute the derivatives and differentials of various functions without the aid of a calculator, and interpret certain limits as derivatives. In particular, they will be able to compute derivatives and differentials using differentiation techniques such as chain rule, implicit differentiation and logarithmic differentiation.
3. Students will be able to find the equation of the tangent line to the graph of a function at a point by using the derivative of the function. They will be able to estimate the

- value of a function at a point using a tangent line near that point.
4. Students will be able to sketch the graphs of functions by finding and using first-order and second-order critical points, extrema, and inflection points.
 5. Students will be able to solve word problems involving the rate of change of a quantity or of related quantities. Students will be able to 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.
 7. Students will be able to compute certain antiderivatives using various antidifferentiation techniques such as integration by substitution. They will be able to 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.

ATTENDANCE:

Please arrive on time for class. Late arrivals are distracting to your classmates and to me. Attendance record may be taken on a regular basis for both lecture and lab sessions. Cell phones should be switched off during all class meetings.

HELP OUTSIDE CLASS TIME:

The University of Texas at Arlington supports a variety of student success programs to help you connect with the University and achieve academic success. These programs include learning assistance, developmental education, advising and mentoring, admission and transition, and federally funded programs. Students requiring assistance academically, personally, or socially should contact the Office of Student Success Programs at 817-272-6107 for more information and appropriate referrals.

Office Visit:

You may visit my office during office hours as given above or by appointment. A graduate teaching assistant will be assigned to the course; he/she will also have regular office hours. Those hours will be listed on the class syllabus or you can contact the Math Department at 817-272-3261 to find out your instructor and/or GTA's office hours.

Math Clinic:

The Math Department operates the Math Clinic, a tutoring service staffed by upper level undergraduate students. When you registered for this course, you were assessed a fee which allows you unlimited access to the Math Clinic. You will need to show your Mav ID to use the Math Clinic. There are tables where you may study on your own or quietly with other students. Each table has a flag which you can raise to indicate that you need help from a tutor. The Math Clinic is in room 314 PKH; the phone number is 817-272-5674; and the hours of operation for fall and spring are

Monday – Thursday	8am to 9pm
Friday	8am to 1pm
Saturday	10am to 6pm
Sunday	1pm to 9pm

Go to the Math Clinic webpage <http://www.uta.edu/math/clinic/> to get more information or to access assignment sheets for the courses for which tutoring is offered.

SOAR Program:

The SOAR program is an academic support program that provides tutoring, counseling,

seminars, graduate school preparation, course reviews, study groups and other support services by trained staff dedicated to helping UT Arlington students reach their full academic potential. Go to <http://www.uta.edu/soar/> for more details.

Science Education and Career Center (SECC):

All previous midterm exams and some previous final exams are available to students in the Science Education and Career Center (SECC), 106 Life Science Building. The fall and spring hours of operation are

Monday-Thursday	8am - 8pm
Friday	8am - 5pm
Saturday	12pm - 5pm
Sunday	Closed

You need a Mav ID Card to check out these exams. A copy machine is available for you to make copies. There are also video tapes of lectures on calculus topics that can be viewed in the SECC. For more information, go to <https://www.uta.edu/cos/SECC/login.php>.

Math Tutors:

The Math Department maintains a list of people who have expressed an interest in tutoring. These persons are not necessarily recommended by the Math Department and they set their own fees. You may obtain a copy of the tutor list in the Math Office, 478 PKH.

AMERICANS WITH DISABILITIES ACT:

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 new federal legislation entitled Americans with Disabilities Act (ADA), pursuant to section 504 of the Rehabilitation Act, there is renewed focus on providing this population with the same opportunities enjoyed by all citizens.

As a faculty member, I am required by law to provide “**reasonable accommodation**” to students with disabilities, so as not to discriminate on the basis of that disability. Student responsibility primarily rests with **informing the course coordinator as soon as possible and providing authorized documentation through designated administrative channels.**

ACADEMIC DISHONESTY:

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 may include suspension or expulsion from the University.

“Scholastic dishonesty includes but is not limited to cheating, plagiarism, collusion, the submission for credit of any work or materials 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.” (Regents Rules and Regulations, Part One, Chapter IV, Section 3, Subsection 3.2, Subdivision 3.22)

GRADE REPLACEMENT POLICY:

These policies are described in detail in the University catalog and can also be founded online at <http://www.uta.edu/catalog/general/academicreg>

The deadline for filing a grade replacement request is Census Date, **February 4.**

STUDENT DISRUPTION:

The University reserves the right to impose disciplinary action for an infraction of University policies. For example, engagement in conduct, alone or with others, intended to obstruct,

disrupt, or interfere with, or which in fact obstructs, disrupts, or interferes with, any function or activity sponsored, authorized by or participated in by the University.

DROP POLICY:

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

DROP FOR NON-PAYMENT OF TUITION:

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

IMPORTANT DATES:

February 4	Census Date
Friday February 13	Deadline for submitting makeup requests
March 16 – 20	Midterm 1 6pm to 8pm
Friday, March 27	Spring Break
Friday, April 3	Midterm 2 6pm to 8pm
Friday, May 8	Last day to drop
Saturday, May 9	Last day of classes
	Final Exam 3pm to 5:30pm