Syllabus for Architectural Calculus Math 1327-001 Spring 2015

Instructor: Daniel Wood **Classroom:** PKH 319

Class Times: TR 8:00-9:20 am

Office: PKH 427

Office Hours: MW 3:00-4:00 pm or by appointment

Email: daniel.wood@mavs.uta.edu

Office Phone: 817-272-5681

Textbook: Calculus, Early Transcendentals Volume One by Soo T. Tan

Course Prerequisite: A sufficient score on the Math Placement Test

Learning Outcomes: Upon completion of Math 1327:

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 the chain rule, implicit differentiation, and logarithmic differentiation.
- 3. Students will be able to find the equation of a 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 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 and be able to solve optimization problems in the context of real-life situations by using differentiation and critical points of functions.

Grading Scale: 90-100 A

80-89 B 70-79 C 60-69 D 0-59 F

Grade Components: Midterm 1 20%

Midterm 225%Final Exam35%HW/Quizzes20%

Homework and Quizzes:

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On most Thursday's we will have a short ten minute quiz at the end of the lecture. All quizzes will be announced in class at least one class period in advance. Make up quizzes will only be given in case of genuine conflicts or emergencies. Please email me in advance if you are going to miss a quiz. All make-ups are at my discretion.

A list of recommended homework assignments will be posted on blackboard. These homework problems will not be collected but you should do most of them if you intend on doing well in the course.

Midterms and Finals: All of these exams are comprehensive. Each exam will be a mix of multiple choice problems and show-your-work problems.

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

Make-up Policy: If you have a conflict with either midterm or final, please let me know as soon as possible to schedule a make-up time. For non-emergency conflicts, you need to inform me at least two weeks in advance to schedule a make-up. After that time, make-up exams will only be granted for emergency situations with proper documentation at my discretion.

Attendance: At The University of Texas at Arlington, taking attendance is not required. Rather, each faculty member is free to develop his or her own methods of evaluating students' academic performance, which includes establishing course-specific policies on attendance. As the instructor of this section, I will not be taking attendance.

Drop Policy: Any student who drops the course on or before Friday, April 03 at 4 PM will receive a W. **Students must consult with their major advisor to drop a course.**

Calculators: The only calculators allowed for the midterms and final are TI-30XA and TI-30XIIS.

Student Support Services Available: The University of Texas at Arlington provides a variety of resources and programs designed to help students develop academic skills, deal with personal situations, and better understand concepts and information related to their courses. These resources include tutoring, major-based learning centers, developmental education, advising and mentoring, personal counseling, and federally funded programs. For individualized referrals to resources for any reason, students may contact the Maverick Resource Hotline at 817-272-6107 or visit www.uta.edu/resources for more information.

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The Math Department operates the <u>Math Clinic</u>, a tutoring service staffed by upper level undergraduate students. The Math Clinic is on the 3rd floor of Pickard Hall; 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 1pm to 6pm 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.

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 faculty at the beginning of the semester and in providing authorized documentation through designated administrative channels.

If you require an accommodation based on disability, I would like to meet with you in the privacy of my office, during the first week of the semester, to make sure you are appropriately accommodated.

Title IX: The University of Texas at Arlington is committed to upholding U.S. Federal Law "Title IX" such that no member of the UT Arlington community shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity. For more information, visit www.uta.edu/titleIX.

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.

UT Arlington Honor Code

I pledge, on my honor, to uphold UT Arlington's tradition of academic integrity, a tradition that values hard work and honest effort in the pursuit of academic excellence.

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I promise that I will only submit work that I personally create or contribute to group collaborations, and reference any work from other sources. I will follow the highest standards of integrity and uphold the spirit of the Honor Code.

Grade Replacement and Grade Exclusion Policies: These policies are described in detail in the University catalog and can also be founded online at http://wweb.uta.edu/catalog/content/general/academic regulations.aspx#10 (scroll about half way down the page).

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.

Emergency Exit Procedures: Should we experience an emergency event that requires us to vacate the building, students should exit the room and move toward the nearest exit. When exiting the building during an emergency, one should never take an elevator but should use the stairwells. Faculty members and instructional staff will assist students in selecting the safest route for evacuation and will make arrangements to assist handicapped individuals.

Course Schedule: The sections that will be covered this semester are listed on the course assignment sheet for 1327. We will cover approximately one section per lecture. The following dates and sections are provisional and subject to change.

Midterm 1: Thursday, Feb. 19 Sections 0.4-2.1 Midterm 2: Thursday, Apr. 2 Sections 2.2-2.10 Final Exam: Tuesday, May 12 Sections 3.1-3.9

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