SYLLABUS: HONR-SC 2425, Honors Calculus II, Section 100, Spring 2014
SYLLABUS: MATH 2425, Calculus II, Section 500, Spring 2014

Instructor: Dr. Gornet **Office:** Pickard 419 (PKH 419)
Office Phone: (817)272-1322 **e-mail:** rgornet@uta.edu
Office Hours: (Subject to Change) Tu 9:30-12, 2-3; Thu 9:30-11, 2-3; or by e-appt
Instructor Website: http://wweb.uta.edu/faculty/rgornet/
Section Information: HONR-SC 2425, Honors Calculus II, Section 100 (Lab 2425-101)
Section Information: MATH 2425, Calculus II, Section 500 (Lab 2425-501)
Time and Place of Class Meetings: Lecture: TuTh, 12:30p–1:50p, Room PKH 105
Labs: TuTh 11a–11:50a PKH 109 (Rooms subject to change.)

Electronic Communication: UT Arlington has adopted MavMail as its official means to communicate with students about important deadlines and events, as well as to transact university-related business regarding financial aid, tuition, grades, graduation, etc. All students are assigned a MavMail account and are responsible for checking the inbox regularly. There is no additional charge to students for using this account, which remains active even after graduation. Students are expected to check their official e-mail account on a frequent and consistent basis to stay current with University communications. The university recommends checking e-mail daily in recognition that certain communications may be time-critical. Information about activating and using MavMail is available at http://www.uta.edu/oit/cs/email/mavmail.php.

Course Content and Prerequisite: Applications of integration, techniques of integration, parametric equations, polar coordinates, sequences, series vectors, dot product, cross product, planes and quadric surfaces. Prerequisite: C or better in MATH 1426 or HONR-SC 1426 (Calculus I).

Student Learning Outcomes: Upon completion of HONR-SC/MATH 2425, the student should be able to:

1. compute the area between two curves, in both rectangular and polar coordinates; compute volumes and surface areas of solids of revolution, in both rectangular and polar coordinates; compute arc length of both polar and rectangular curves
2. compute the value of integrals by the methods of integration by parts, trigonometric substitutions and partial fractions
3. compute the value of improper integrals
4. compute limits of sequences and series
5. determine the radius of convergence of power series; differentiate and integrate power series
6. represent a known function as a Taylor series; approximate a known function with a Taylor polynomial and determine the error involved
7. compute the standard representation of a vector in 3-space, compute the dot product and cross product of vectors
8. write equations of lines, planes, and quadric surfaces in 3-space
9. justify and explain their steps in problem solving. In particular, students should be able to construct correct and detailed mathematical arguments to justify their claimed solutions to problems.

Info from Honors College Website How do Honors courses differ from regular courses? Honors courses are not "accelerated" as are many high school honors courses. Instead they are designed to offer greater flexibility in teaching techniques, more faculty/student interaction, and a **deeper understanding** of the subject matter. Honors courses satisfy many of the regular University requirements and correspond closely to regular sections in preparing students for further courses.

Required Textbook, Supplies, and Electronic Access: *Calculus: Early Transcendentals,* Custom Edition for the University of Texas at Arlington, by Soo T. Tan; **with WebAssign (required)** You must bring a scantron to all test dates.

Description of major assignments and expectations: There will be two (departmental) examinations, online homework, weekly quizzes from the homework, weekly group lab projects, and a (departmental) final examination. Due dates are available online and/or Blackboard. Those in HONR-SC 2425 will also have an added Honors project, selected by the instructor, with due date TBA.

Lab Attendance and Worksheets: Each Thursday, your lab section will consist of a problem solving

worksheet. These are intended to be more in-depth than problems on Webassign and/or the assignment sheet and are meant to be worked out in groups. Therefore, you will turn in lab worksheets in groups of 2-4 (no more, no less). The lab assignments will be due at the end of lab that day. I will average the top 10 lab grades. Again, you must be present for the entire lab session in order to turn in the lab assignment with your group. Because the labs are due at the end of the hour, the previous week you will receive a Pre-Lab assignment, which will constitute 20

Attendance: Attendance is required. You are responsible for any and all announcements made in class. You are responsible for any material missed during class.

Lab Attendance is required. You will not be given full credit for your (or your group's) lab submission if you have not attended the corresponding lab.

HONR-SC 2425 Grading: The Grading Scale is 90-100 A ; 80-89 B ; 70-79 C ; 60-69 D ; 0-59 F.

Midterm Exam 1: 15% Friday, 7 February 2014; 6p-8p
Midterm Exam 2: 25% Friday, 21 March 2014, 6p-8p
Final Exam: 35% Saturday, 3 May 2014; 12:30p-3p
Online Homework: 5% (cumulative semester average)
Quizzes: 5% (average of top 10 quizzes)
Lab Projects: 10% (average of top 10 labs)
OTHER: 5%

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Midterms and Finals: These exam times are departmental. However, HONR-SC 2425 will take an adapted form of the uniform exams. Those taking MATH 2425 will take the same exam and the grades will have the same weight in each section. 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 a D in the course.

Previous Midterms and Finals: You may access previous midterms and some of the finals online. The link(s) for these may be found from the Course Website, accessed via Dr. Gornet's UTA homepage.

Expectations for Out-of-Class Study: Between lectures, you are expected to review your notes, go through the appropriate section(s) in the book, understand all relevant examples in the book, and attempt all homework problems assigned for the section. Beyond the time required to attend each class meeting, students enrolled in this course who intend to earn a grade of 'C' or higher should expect to spend at least an additional 12 focused hours each week of their own time in course related activities, including reading required materials, completing assignments, and preparing for exams.

Exam and Quiz Make-up Policy: If you have a conflict with either midterm or final, you must contactme no later than Census Date (January 29) by using a form attached to my office door (PKH 419) and submitting it together with necessary documentation as indicated on the form. If a conflict arises after Jan. 29, contact me immediately. **Delays in submitting a make-up request may mean that your request cannot be approved.** If you have a legitimate conflict with any of the quizzes or group labs you may e-mail Dr. Gornet **prior** to the quiz or lab. If after receiving supporting documentation the excuse is approved, a makeup quiz will be arranged at that time, or you will be permitted to submit the lab. Do not assume that your e-mail has been received if there is no response.

Exam and Quiz Calculator Policy: On the midterms and final you will be allowed to use only the TI-30XA and TI-30XIIS, the latter is on the current list of calculators allowed for the professional engineering exams. No calculators will be allowed on quizzes. Calculators other than TI-30XA and TI-30XIIS will be confiscated at the beginning of exams, no exceptions. Any device that has electronic communication abilities of any kind is not allowed for any reason, including child care issues, during any exam or quiz. Any student caught with such a communication device will be considered as cheating, with resulting consequences.

Exam Picture ID Policy: You will be asked to present a UTA picture ID at all exams. Bring your UTA picture ID to all exams.

Drop Policy: Students may drop or swap (adding and dropping a class concurrently) classes through self-service in MyMav from the beginning of the registration period through the late registration period. After the late registration period, students must see their academic advisor to drop a class or withdraw. Undeclared students must see an advisor in the University Advising. Drops can continue through a point two-thirds of the way through the term or session. The last day this semester to drop a course is **Friday, 28 March 2014 at 5pm.** Any student who drops the course on or before this date will receive a W. **Students must consult with their major advisor to drop a course.** It is the student's responsibility to officially withdraw if they do not plan to attend after registering. **Students will not automatically be dropped for non-attendance.** Repayment of certain types of financial aid administered through the University may be required as the result of dropping classes or withdrawing. For more information, contact the Office of Financial Aid and Scholarships (http://wweb.uta.edu/ses/fao).

Americans with Disabilities Act: The University of Texas at Arlington is on record as being committed to both the spirit and letter of all federal equal opportunity legislation, including the Americans with Disabilities Act (ADA). All instructors at UT Arlington are required by law to provide "reasonable accommodations" to students with disabilities, so as not to discriminate on the basis of that disability. Any student requiring an accommodation for this course must provide the instructor **in a timely manner** with official documentation in the form of a letter certified by the staff in the Office for Students with Disabilities, University Hall 102. This **must be done by the Census Date, 29 January 2014.** Only those students who have officially documented a need for an accommodation will have their request honored. Information regarding diagnostic criteria and policies for obtaining disability-based academic accommodations can be found at www.uta.edu/disability or by calling the Office for Students with Disabilities at (817)272-3364.

Academic Integrity: All students enrolled in this course are expected to adhere to the 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. I promise that I will submit only work that I personally create or contribute to group collaborations, and I will appropriately reference any work from other sources. I will follow the highest standards of integrity and uphold the spirit of the Honor Code.*

At UT Arlington, academic dishonesty is completely unacceptable and will not be tolerated in any form, including (but 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" (UT System Regents Rule 50101, §2.2). Suspected violations of academic integrity standards will be referred to the Office of Student Conduct. Violators will be disciplined in accordance with University policy, which may result in the students suspension or expulsion from the University.

Student Support Services: UT 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. Resources include tutoring, major-based learning centers, developmental education, advising and mentoring, personal counseling, and federally funded programs. For individualized referrals, students may visit the reception desk at University College (Ransom Hall), call the Maverick Resource Hotline at 817-272-6107, send a message to resources@uta.edu, or view the information at www.uta.edu/resources.

Math Clinic Tutoring: The Math Department operates the Math Clinic, 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, 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.

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.

Private tutoring: 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.
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.
Exit Strategy: From PKH 105 or 109: Move to PKH 110 during inclimate weather (eg tornado), exit at the rear of the class through doors to outside for fire.
Cell Phone/Laptop Use: Cell phones are not allowed during class time; the only exception is those who are the primary contact for a child in daycare/school. If this is the case, notify Dr. Gornet by email by the census date. If you need to check your messages, you must do so on your own time, not class time. Using a laptop during class is a privilege, not a right. This privilege will be revoked for any students using the laptop for purposes other than Calculus.
Grade Exclusion and Grade Replacement Policies: These policies are described in detail in the University catalog and can also be found online. Further questions should be directed to your academic advisor and not the instructor of this 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.
Student Feedback Survey: At the end of each term, students enrolled in classes categorized as lecture, seminar, or laboratory shall be directed to complete a Student Feedback Survey (SFS). Instructions on how to access the SFS for this course will be sent directly to each student through MavMail approximately 10 days before the end of the term. Each student's feedback enters the SFS database anonymously and is aggregated with that of other students enrolled in the course. UT Arlington's effort to solicit, gather, tabulate, and publish student feedback is required by state law; students are strongly urged to participate. For more information, visit http://www.uta.edu/sfs
Final Review Week: A period of five class days prior to the first day of final examinations in the long sessions shall be designated as Final Review Week. The purpose of this week is to allow students sufficient time to prepare for final examinations. During this week, there shall be no scheduled activities such as required field trips or performances; and no instructor shall assign any themes, research problems, or exercises of similar scope that have a completion date during or following this week *unless specified in the class syllabus.* During Final Review Week, an instructor shall not give any examinations constituting 10% or more of the final grade, except makeup tests and laboratory examinations. In addition, no instructor shall give any portion of the final examination during Final Review Week. During this week, classes are held as scheduled. In addition, instructors are NOT required to limit content to topics that have been previously covered; they may introduce new concepts as appropriate.
Course Schedule: We will cover the following sections from the text.

Test 1: (tentative) 6.1, 6.2, 6.3, 6.4, 6.6, 8.1

Test 2: (tentative) 8.1, 8.2, 8.3, 8.4, 8.5, 8.6, 8.7, 8.8, 8.9 (plus above sections)

Final Exam: 5.2, 5.3, 5.4, 9.2, 9.3, 9.4, 9.5, 10.1, 10.2, 10.3, 10.4, 10.5 (plus above sections)

"As instructor for this course, I reserve the right to adjust this schedule in any way that serves the educational needs of the students enrolled in this course. -Ruth Gornet"

Important Dates (2014):

Mon, 20 Jan: MLK Holiday (no classes)
Wed, 29 Jan: Deadline for makeup exam requests for all exams
Wed, 29 Jan: Deadline for all Disability Accommodation Requests
Wed, 29 Jan: Census date
Fri 7 Feb: MIDTERM 1, 6p-8p
Mon, 10 March - Fri, 14 March: SPRING BREAK (no classes)
Fri, 21 March: MIDTERM 2, 6p-8p
Fri, 28 March, 5pm: Official last day to drop courses
Fri, 2 May: Last day of classes
Sat, 3 May, 12:30pm-3:00pm, FINAL EXAM