Math 1421  
Spring 2015  
Section 150/151

**Course purpose:** This course satisfies the University of Texas at Arlington core curriculum requirement in mathematics. This course integrates and builds upon concepts and skills from college algebra and trigonometry that are essential to success in calculus. Problem solving activities form the basis for the establishment of these mathematical connections.

Instructor:  
Office:  
Email:  
Class Time: MWF 1-150  
Classroom: PKH 109  
Office Hours: WF 12-1250

Lab GTA:  
Office:  
Email:  
Lab Time: MW 200-250  
Classroom: PKH 309  
Office Hours: T/TH 2-3

**Textbook (Required):** *Precalculus Mathematics for Calculus 7th ed*  Stewart, Redlin & Watson

**Course Materials (Required):**
- ScanTron QuizStrips (form no. 815-E)
- ScanTron (form SC882-E)
- WebAssign Online Homework: Register** for WebAssign at: [http://webassign.net/](http://webassign.net/)  
  Class Key for 1421-150: uta 9412 6065
  **If you purchased your book new, you receive an access code for WebAssign. Otherwise, you will need to purchase this. There is a 14-day trial period before action is needed regarding purchasing access.

**Course Materials (Optional):**
- Calculators: TI-30XA and TI-30XIIIS
- Graph Paper

**Course Prerequisite:** C or better in MATH 1301 or MATH 1302 or MATH 1315, or a qualifying score on Math Placement Test.

**Learning Outcomes:** Upon completion of Math 1421:

1. 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 solutions to problems.
2. Students will demonstrate facility with expressing, applying, and combining functions in tabular, graphical, and symbolic forms.
3. Students will be able to identify and analyze the unifying characteristics of functions and their graphs including invariant properties under function transformations, domain and range, asymptotes, zeroes, and end behavior.
4. Students will be able to interpret and define the six trigonometric functions, in terms of both right
triangles and the unit circle. They will be able to graph trigonometric and inverse trigonometric functions, without the aid of a graphing calculator, by applying the concepts of amplitude, periods and phase shifts. Students will also be able to verify and use trigonometric identities and formulas and to apply them to solve trigonometric equations and word problems, including problems that require solving a triangle.

5. Critical Thinking Skills: to include creative thinking, innovation, inquiry, and analysis, evaluation, and synthesis of information

6. Communication Skills: to include effective development, interpretation and expression of ideas through written, oral and visual communication;

7. Empirical and Quantitative Skills: to include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions.

Grading Scale:

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<th>Score Range</th>
<th>Letter Grade</th>
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<td>100-90</td>
<td>A</td>
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<td>89-80</td>
<td>B</td>
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<td>79-70</td>
<td>C</td>
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<td>69-60</td>
<td>D</td>
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<td>&lt;60</td>
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<table>
<thead>
<tr>
<th>Grade Component</th>
<th>Percentage</th>
<th>Date</th>
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<tbody>
<tr>
<td>Midterm I</td>
<td>20%</td>
<td>Friday, February 13, 6-8 pm</td>
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<tr>
<td>Midterm II</td>
<td>25%</td>
<td>Friday, March 27, 6-8 pm</td>
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<tr>
<td>Final Exam</td>
<td>35%</td>
<td>Part I: Monday, May 4 (computer lab)</td>
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<td>Part II: Saturday, May 9, 1230-300 pm</td>
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<td>Lab (including signature assessment)</td>
<td>10%</td>
<td>N/A</td>
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<tr>
<td>Quizzes/Homework/Assignments</td>
<td>7%</td>
<td>N/A</td>
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<tr>
<td>Skills Review</td>
<td>3%</td>
<td>N/A</td>
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Exam Location: Note that the location of exams will be announced prior to the exam date. The location will, most likely, NOT be in our classroom.

Homework will be completed using WebAssign. While grades from homework assignments will not count in your final grade you must earn at least 70% on an assignment to unlock your WebAssign quiz for each assignment. Online quizzes will count for 3.5% of your final grade. The two (2) lowest online quiz grades will be dropped.

You will need to bring at least one Scantron Quizzstrip (form no. 815-E) to class each day in anticipation of an in-class, unannounced quiz. These in-class quizzes will count for 3.5% of your grade.
and will be administered during the first 10-15 minutes of class. Students who are not present when the quiz is handed out will not be allowed to take the quiz and will receive a zero. The one (1) lowest in-class quiz grade will be dropped.

Skills Review: Over the course of the semester you will be assigned a series of skills reviews to work on through WebAssign. You must complete all of them over the course of the semester and you may continue to attempt the assignments until you have mastered the material. You may not attempt the next skills review until you have mastered (80%) the previous one. These skills reviews will help solidify skills you will use fluently in calculus (and have seen in Math 1302) but will not be directly discussed in Math 1421.

Calculators: The only calculators allowed for quizzes (both in-class and online), midterms and final are TI-30XA and TI-30XIIS. You may not use a cellphone as a calculator on exams.

Attendance Policy: 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 track attendance using a sign-in sheet on days when an in-class quiz is not administered.

Electronics Policy: Students may not use electronics during course meetings without prior consent from the instructor (unless the instructor is using technology to poll the entire class). This includes (but is not limited to): cell phones, tablets, laptop computers.

Midterms and Finals: These exams are departmental, i.e., all sections of Math 1421 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. You must bring a photo ID to each exam; failure to do so may result in you not being admitted to the exam or your exam not being graded.

The final exam for this course consists of two parts. Regardless of prior class standing, you must pass all portions of Part I and achieve a score of 50 or above on Part II to earn a grade higher than a D in this course.

Part I of the final exam will be administered during the last recitation session of the semester, in the Emporium lab.

Make-up Policy: All makeup exams are scheduled through your instructor and must be requested by Census Date (February 4). If you know that you have a conflict with one of the dates listed above you must contact your instructor, in writing, before this date. It is up to the instructor whether or not to grant a makeup exam.

Makeup exams will not be granted after the fact; that is, requesting a makeup after Census Date will result in a denial of makeup unless substantiation of an emergency (i.e. hospital records, etc.) is provided.
Students absent for religious holidays or University events must give notice to the instructor at least 7 days before the absence; substantiation may be requested.

**No makeup quizzes will be allowed.**

**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 Center. Drops can continue through a point two-thirds of the way through the term or session. It is the student's responsibility to officially withdraw if they do not plan to attend after registering. **Students will not be automatically 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/aoa/fao/).

**Drop Date:** Friday, April 3 by 4 pm.

**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. Information about activating and using MavMail is available at http://www.uta.edu/oit/cs/email/mavmail.php.

**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.

**START STRONG Freshman Tutoring Program**

**University Tutorial and Supplemental Instruction (UTSI)/University College**
All first time freshmen can receive five FREE hours of tutoring for this course and other selected subjects for this semester. **Students must sign up and complete their first hour of tutoring by February 27, 2015.** To sign up, visit UTSI in 205 Ransom Hall/University College. Upon completion of your first tutoring appointment, you will receive five hours of additional free tutoring. Flexible tutoring hours are available from 7:00am – 9:00pm, seven days a week at secure locations on campus. All tutors receive extensive training. Find out more at www.uta.edu/Startstrong

The Math Department operates the **Math Clinic**, a free 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 8 am – 9 pm
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.

**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 with official documentation in the form of a letter certified by the staff in the Office for Students with Disabilities, University Hall 102. 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. 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:** 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.

UT Arlington faculty members may employ the Honor Code as they see fit in their courses, including (but not limited to) having students acknowledge the honor code as part of an examination or requiring students to incorporate the honor code into any work submitted. Per UT System Regents’ Rule 50101, §2.2, suspected violations of university’s standards for academic integrity (including the Honor Code) will be referred to the Office of Student Conduct. Violators will be disciplined in accordance with University policy, which may result in the student’s suspension or expulsion from the University.

**Grade Replacement and 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/content/general/academic_regulations.aspx#10 (Scroll about half way down the page).
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.

Student Feedback Survey: At the end of each term, students enrolled in classes categorized as “lecture,” “seminar,” or “laboratory” shall be directed to complete an online 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.

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, which is located directly past the vending machines. 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: Please see attached assignment sheet.

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.

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<tr>
<th>Important Dates</th>
<th>First Day of Classes</th>
<th>Census Date</th>
<th>Midterm I – 6-8 pm</th>
<th>Spring Break</th>
<th>Midterm II – 6-8 pm</th>
<th>Drop Date – by 4 pm</th>
<th>Final Exam (Part I) During Lab</th>
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<td>January 20 (Tuesday)</td>
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<td>March 9-13</td>
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<td>March 27 (Friday)</td>
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<td>April 3 (Friday)</td>
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<td>May 8 (Friday)</td>
<td>Last Day of Classes</td>
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<td>May 9 (Saturday)</td>
<td>Final Exam (Part II) 1230-300 pm</td>
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