Mathematics 2312: Precalculus, Section 004
Spring 2024

Instructor: Rajat Gupta

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Class Schedule: Class meets TuTh at 9:30 am – 11:00 am in RBN 4019.

Course Website: You MUST activate your Canvas account. To do so, go to https://uttyler.edu/canvas. This is also the address to login. If you are registered in the course, you already have access to the course. All important documents will be posted on Canvas.

Office Hours: 2:30-3:30 MWF and by appointment arranged by email.

Required Text: *Precalculus* from OpenStax (Digital ISBN: 1947172069). This is an open-access textbook, meaning it is freely available at the following link: www.openstax.org/details/precalculus. You can read the book online, or download the PDF, iBooks, or Kindle versions of it. If you prefer to have a print copy, you can purchase one. At the OpenStax website above, there is a link to order a print copy.

Course Description: This course is a survey of college algebra, trigonometry, and analytic geometry to prepare students for calculus. Topics include algebraic functions and their graphs, exponential and logarithmic functions, trigonometric functions, and identities. Credit is not given for both Math 2312 and Math 1316.

Course Prerequisites: Appropriate score on the SAT, ACT, or TSI.

Outline: Chapters 1-7 of the text, in part or in full.

Student Learning Objectives: Upon completion of this course, students should be able to do the following.

   1. Develop analytical reasoning to solve algebraic problems such as finding the solutions to polynomial, rational, exponential, logarithmic, and

trigonometric equations, as well as finding inverse functions.

2. Represent trigonometric functions by drawing relevant pictures on the unit circle, by writing the correct trigonometric definitions, and by verbal description.

3. Demonstrate a critical understanding of functions by graphing and analyzing them, evaluation functions at specific real numbers and at variable values, computing new functions from old functions through algebraic operations, and factoring polynomials and finding their zeroes.

4. Calculate the values of trigonometric functions based on right-triangular and circular definitions.

5. Solve right triangle given appropriate information about sides and angles.

6. Prove the validity of trigonometric identities.

Grading: To assign your grade, I will average your homework, quizzes, the 2 midterms, and the final as follows.

Attendance: 10%
Homework: 10%
Quizzes: 10%
Midterms: 30%
Final Exam: 40%

Getting an A requires at least a 90% average, B 80%, C 70%, and D 60%. Anything lower is an F.

Attendance: At the start of class, I will take attendance. If you do not show up During class, I will mark you absent for that day.

Homework: Homework will be assigned on Canvas at the end of each class period. You will have one week to complete each assignment. If you have a scheduling conflict and cannot turn it in on time, please inform me beforehand.

Quizzes: At the start of class each Tuesday, we will have a 10-minute quiz on what we covered the previous week. To determine your quiz grade, I will drop your lowest three-five quiz grades and average the rest.

Exams: We will have two midterms. Calculators and cell phones will not be allowed on quizzes, midterms, or final exams. If you are unable to take a midterm or the final at the given date, please inform me at least one week in advance. If it is for a UT Tyler obligation or a religious observation, I will grant it.

Final Exam: The final exam is currently scheduled for May 2 from 9:30 to 11:30 in RBN 4019 (or TBA).

Cell Phones: Cell phones are not permitted in class. Please silence them beforehand.

Academic Integrity: Your work must be your own. Violations will be processed according to the established guidelines of the department, college, and university. Violations of academic integrity include, but are not limited to, cheating, fabrication, or plagiarizing. A range of academic sanctions may be taken against a student who engages in academic dishonesty. Below are ideas related to academic integrity.

Resources you are encouraged to utilize in this course include the textbook, assigned and unassigned problems, notes from class, the Math Learning Center, your instructor, and the other students (though your work must ultimately be your own). E-mail is the best way to contact me outside of class and office hours.

While the internet is a valuable resource, using it to unethically acquire answers is considered a violation of academic integrity and processed accordingly. Similarly, copying answers from other students' assignments, past and present, violates the idea that your work must be your own.

Cheating is a very serious issue and can result in disciplinary action. While you may collaborate with your peers, you cannot copy their work.

University Policies: January 29 is this semester's Census Date, the deadline for all registrations, schedule changes, and section changes. For university policies concerning Students' Rights and Responsibilities, Grade Replacement/Forgiveness, State-Mandated Course Drop Policy, Disability Services, Student Absence due to Religious Observance, Absence for University-Sponsored Events and Activities, Social Security, and FERPA Statement, please see http://www.uttyler.edu/academicaffairs/files/syllabuspolicy.pdf.

ADA Compliance: If you have a disability, including a learning disability, for

which you request disability support services/accommodation(s), please contact the Office of Student Accessibility and Resources so that the appropriate arrangements may be made. In accordance with federal law, a student requesting disability support services/accommodation(s) must provide documentation of his/her disability to the Disability Support Services counselor. For more information, call or visit the Office of Student Accessibility and Resources located in the University Center, Room 3150. The telephone number is 903-566-7079. Additional information may also be obtained at the following site: https://uttyler.edu/disability-services/?r=/disabilityservices.