Math 1330: Precalculus
Course Syllabus

Section number: This information applies to ALL face-to-face sections
Delivery format: face-to-face lecture
Prerequisites: MATH 1310: College Algebra or a passing score on the test for placement out of College Algebra.

Textbook: Available in electronic form (PDF) through CASA for all enrolled students.

The information contained in this class outline is an abbreviated description of the course. Additional important information is contained in the departmental policies statement at http://www.math.uh.edu/~dog/13xxPolicies.doc and at your instructor's personal webpage. You are responsible for knowing all of this information.

Upon successful completion of this course, students will be able to apply algebraic rules and transformations to simplify or elaborate on mathematical expressions. Students will understand and be able to apply methods of solution of polynomial, rational, and trigonometric equations and will understand the properties of solutions of such equations. Students will be familiar with properties of conic sections and other elementary curves and will be able to simultaneously exploit graphical and analytical techniques in solving problems. They will be able to translate ordinary language descriptions of a problem into mathematical expression and explain in English the important elements of a mathematical solution.

A student in this class is expected to complete the following assignments:
1 5 Regular Exams
2 Final Exam
3 Online Quizzes – one per week.
4 Homework – on each section of the textbook covered in class
5 Poppers – in-class quizzes given daily starting the 3rd week of classes.

Test 1: 10%
Test 2: 15%
Test 3: 15%
Test 4: 15%
Final Exam: 15%
Poppers: 10%
Homework: 10%
Weekly Quizzes: 10%

Total: 100%

Text The learning materials for Math 1330, including the textbook, are found online on the CourseWare site at www.casa.uh.edu. Students are required to purchase an access code at the Book Store to access the learning materials.

Precalculus Topic List

Functions
- Definition and Graphs
- Techniques in Graphing
- Methods of Combining Functions
- Inverse Functions

Polynomial and Rational Functions
- Linear Functions
- Quadratic Functions
- Applied Functions – Setting up Equations
- Polynomial Functions
- Rational Functions

Conic Sections
- Parabolas
- Ellipses and Hyperbolas

Trigonometric Functions of Angles
- Trigonometric Functions of Acute Angles
- Algebra and the Trigonometric Functions
- Right-Angle Trigonometry
- Trigonometric Functions of Angles
- Trigonometric Identities

Trigonometric Functions of Real Numbers
- Radian Measure
- Radian Measure and Geometry
- Trigonometric Functions of Real numbers
- Graphs of the Sine and Cosine Functions
- Graphs of $y = A \sin(Bx – C)$ and $y = A \cos (Bx – C)$
- Graphs of the Tangent and the Reciprocal Functions

Analytical Trigonometry
- The Addition Formula
- The Double-Angle Formula
- Trigonometric Equations
- The Inverse Trigonometric Functions

Additional Topics in Trigonometry
- The Law of Sines and The Law of Cosines

Whenever possible, and in accordance with 504/ADA guidelines, the University of Houston will attempt to provide reasonable academic accommodations to students who request and require them. Please call 713-743-5400 for more assistance.