

**Math.1330-26494: Precalculus
Course Syllabus – Fall 2016**

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Course/Section Number: Math.1330/26494
Lecture Time/Place: MWF 11:00am – 12:00pm / SEC 101
Delivery format: Face to Face
Prerequisites: Math.1310 – College Algebra or a passing score in the placement examination.

**Note: This course is designed for students who have MATH 1431 Calculus I in their degree plan. Please see an advisor to check about Calculus I being in your degree plan. If it is not there, please take Math 1311 and Math 2311 as your core and reasoning.*

Course Description: This course concentrates on the various subjects that are important to the study of MATH 1431 Calculus I and MATH 1432 Calculus II, including a review of functions (polynomial, rational, exponential, logarithmic functions), trigonometry, conic sections, vectors in plane, and polar coordinates.

Textbook: The learning materials for Math 1330, including the textbook, are available online in electronic form (PDF) through [CASA](http://www.casa.uh.edu) website at www.casa.uh.edu. **Students are required to purchase an access code at the Book Store to access the learning materials.**

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.mathematics.uh.edu/undergraduate/courses/math13xx/> or at your instructor's personal webpage. You are responsible for knowing all of this information.

Upon successful completion of this course, the students will be able:

- Recall and apply basic algebra skills without requiring a review.
- Recognize various kinds of functions (including polynomial, rational, radical, exponential, and logarithmic functions), analyze their behavior, and use the properties of these functions to solve equations and application problems.
- Define trigonometric functions; understand the right triangle trigonometry and unit circle.
- Know and apply identities involving the trigonometric functions.
- Recognize the conic sections and their geometric properties.
- Exploit graphical and analytical techniques in solving problems.
- Analyze and explain the important elements of the mathematical solution of equations.
- Recognize and use the vocabulary of vectors (vector, scalar, magnitude, direction) to perform arithmetic on vectors and to solve application problems.
- Recognize polar coordinates and use them to draw graphs and plot points.
- Be self-disciplined and dependable through daily consistent work.

A student in this class is expected to complete the following assignments:

1. **Course Policy Quiz** – online on your CASA account :
You must make 100% on the course policy quiz in order to have access to the other online assignments in the course. The answers to the quiz may be found in the “Math 13xx Departmental Course Policies” document on your instructor’s website.
2. 4 Regular Exams
3. Final Exam
4. Weekly Online Quizzes (mostly 2 quizzes per week beginning 2nd week of classes)
5. Weekly Homework Assignments
6. Poppers (in-class quizzes given daily starting the 3rd week of classes).

Components and Weights of Semester Assignments:

- Test 1: 5%
- Test 2: 15%
- Test 3: 15%
- Test 4: 15%
- Final Exam: 20%
- Online Quizzes: 10%
- Poppers: 10%
- Homework: 10%
- Total: 100%

Grading Scale: If you call your average “x”:

A $93 \leq x \leq 100$	B- $80 \leq x < 83$	D+ $67 \leq x < 70$
A- $90 \leq x < 93$	C+ $77 \leq x < 80$	D $63 \leq x < 67$
B+ $87 \leq x < 90$	C $73 \leq x < 77$	D- $50 \leq x < 63$
B $83 \leq x < 87$	C- $70 \leq x < 73$	F $0 \leq x < 50$

Tests: There will be 4 tests, along with a mandatory final exam. The complete schedule is on your instructor’s web page. All tests are taken at CASA testing center, with reservation. **You can NOT use calculators during the tests; study accordingly.**

Test 1 is over pre-requisite material and will be taken at CASA Testing Center by reservation. Use “proctored exams” tab at your CASA account to reserve a seat for it.

IMPORTANT: If you score low on Test 1 (below 60 without extra credit); you may consider dropping this course and taking the prerequisite course to prepare yourself for this course. If you decide not to drop, it is strongly recommended that you sign up for an **SEP workshop** designed for Math 1330 students; you can add a workshop in your PS account before the last day to add.

To see the exam dates and topics covered, please visit your instructor's website. **You must make a reservation to take a test prior to the first testing day.** You should print out the web page showing your reservation time for your records and proof of your reservation.

Tests are 50 minutes long. Push the "submit" button when you're completely ready to leave the Testing Center, **AFTER** you've finished **ALL** the questions and checked your work.

If you miss a test, you receive a zero for it. When you take the final, the grade on the final will replace that zero. If you miss more than one test, only the first one will be replaced.

Final Exam: Final is comprehensive and compulsory for ALL students. There is no "exemption" or "opt-out" from the final in Math.1330. No make-ups/No excuses. **NO EARLY FINALS.**

Exam topics: *(Any change on the exam topics will be announced on the instructor's website)*

Test 1	Prerequisite Material
Test 2	Algebra review, Chapter 4
Test 3	Chapters 5 and 6
Test 4	Chapters 7 and 8
Final	Comprehensive (covers all sections; including vectors and polar curves)

Extra Credit: There are practice tests and a practice final on Courseware. If you take the practice test, then 10% of the highest score you earn will be applied to the relevant test as extra credit. You can take the practice tests several times (up to 20 times) and we only take your best score. Pay attention to the "end" dates on these. None of the practice tests will ever be reopened.

Online Quizzes: The quizzes are located in the [CASA](#) CourseWare course website under the "Online Assignments" tab. The quizzes will close on the due dates given on CourseWare at 11:59 pm and will not re-open. One of the lowest quizzes will be dropped at the end of semester. You have 20 times to take each quiz, highest score saved. Each quiz has a 60 minute time limit. All of the quizzes are open starting the first day of classes.

There will be **no makeup quizzes** for any reason. Neither the instructor, nor Math Department, is responsible for any difficulty that you have in accessing the quizzes. Please don't delay taking quizzes – there are times during the week when CourseWare is slow or overloaded. There is **no amnesty period** for the quizzes; the quizzes will NOT be reopened at the end of the semester. If you miss a quiz, you will NOT have a chance to make up for it. Please contact CourseWare tech support directly if you are having technical problems for your account.

Poppers: Beginning the third week of school, you will have daily poppers (short questions on the material from that day's lecture or from the lecture just prior to that day.) Each popper will be taken on a bubbling form. We will drop 15% of the total number of the questions asked in poppers during all the semester. Popper grades will be posted in your CourseWare gradebook. There will be **no**

make-up Poppers. The bubbling forms are for sale at the BOOK STORE. **Please buy the right bubbling form package for Math 1310 with your section number printed on it.**

**Note: If your popper's grade is missing even though you turned it in, that means you have made a bubbling mistake and there is nothing we can do about it, you will not receive credit for such poppers. It is your responsibility to make your attendance count.*

Homework: Homework is going to be assigned weekly covering all the material seen during the prior week of lectures. You need to submit your homework via your CASA account. There will be two types of homeworks: **EMCF and Written Homeworks.**

- **EMCF:** Each EMCF homework consists of multiple choice problems, the answers of which will be submitted electronically using “EMCF” tab in your CASA accounts.
- **Written:** Each written homework consists of problem, for which you will show your work. Once you complete it, you will upload it as a PDF file on your CASA accounts under “Assignments” tab before the due date expires.

The information on how to upload homework will be provided on the course website. Students must follow these instructions to receive a grade on the homework; files uploaded incorrectly will not be graded. Two of the lowest homework assignment scores will be dropped. **No late homework;** no make ups on the homework.

Late Assignments, Make-Up and Incomplete Policies:

- This course is a cumulative course. You as a student need to keep up with the reading, homework assignments and exams. Thus late work or make-ups will not be accepted.
- The following is calculated for the final grade:
 - Two of the lowest homework assignments are dropped.
 - One of the lowest quizzes is dropped.
 - 85% of the total number of popper questions will be the 100%.
 - The final exam score can replace the lowest exam score.

Incomplete policy: A notation of "incomplete" may be given in lieu of a final grade to a student who has carried a subject successfully until the end of a semester but who, because of illness or other unusual and substantiated cause beyond the student's control, has been unable to take or complete the final examination or to complete some limited amount of term work.

Special Accommodations: 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.

Precalculus Topic List

Algebra Review: Functions

- Methods of Combining Functions
- Inverse Functions
- Polynomial and Rational Functions
- Exponential Functions
- Logarithmic Functions

Chapter 4: Trigonometric Functions

- Special Right Triangles and Trigonometric Ratios
- Radians, Arc Length and the area of a Sector
- Unit Circle Trigonometry
- Trigonometric Expressions and Identities

Chapter 5: Graphing Trigonometric Functions

- Trigonometric Functions of Real numbers
- Graphs of the Sine and Cosine Functions
- Graphs of the other Trigonometric Functions
- Inverse Trigonometric Functions

Chapter 6: Trigonometric Formulas and Equations

- Sum and Difference Formulas
- The Double-Angle and Half-Angle Formulas
- Solving Trigonometric Equations

Chapter 7: Trigonometric Applications

- Solving Right Triangles
- Area of a Triangle
- The Law of Sines and The Law of Cosines

Chapter 8: Analytic Geometry

- Circles
- Ellipses
- Parabolas
- Hyperbolas

Additional Topics

- Vectors in the Plane
- Polar Coordinates and Polar Curves