Math 1330 PRECALCULUS - Course Syllabus
Summer 2017
Section Number: 04 (CRN: 12469)

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Course website: http://math.uh.edu/~caputo and http://casa.uh.edu (Courseware site)

Course Learning Materials:

You do not need to purchase a textbook for Math 1330. The textbook, online quizzes, EMCF assignments, and additional help materials will be made available by logging into CourseWare at http://www.casa.uh.edu. These first portion of these materials are freely available for the first two weeks of class. All students must purchase a Course Access Code and enter it on CourseWare by the first day of the third week of class to continue accessing the course learning materials. A Course Access Code can be purchased for about $50 from the University Bookstore.

More information about this course is posted on the course website. Your instructor reserves the right to make changes on the syllabus; any changes will be announced on the course website.

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/ and at your instructor’s personal webpage. You are responsible for knowing all of this information. Note that some 13xx policies do not apply to 1330 (for instance; no exemption/optout from the final in Math 1330).

PREREQUISITES: MATH 1310: College Algebra or a passing score on the test for placement out of College Algebra.

Math 1330 is a course mainly for students who have Calculus I in their degree plan. As such, the following rules apply to this course:

No calculators to be used on homework, quizzes, or tests(*).

No opt-out on the final; the final is mandatory for all students.

Please see an advisor to check about Calculus I being in your degree plan. If it is not there and if Math 1330 is not required for your major (as a prerequisite for another course), please take Math 1311 and Math 2311 as your core and reasoning.

*if you have calculator use on a SAF form, please take Math 1311 and Math 2311.
The textbook, online quizzes, and additional help materials will be made available by logging into CourseWare at [http://www.casa.uh.edu](http://www.casa.uh.edu). The first portion of these materials are freely available for the first two weeks of class. **Students are required to purchase an access code at the UH Book Store to access the learning materials by the end of the second week of school.**

**COURSE OBJECTIVES FOR PRECALCULUS**

When you successfully complete this course, you will be able to:
1. Recall and apply basic algebra skills without requiring a review.
2. 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.
3. Define trigonometric functions; understand the right triangle trigonometry and unit circle.
4. Know and apply identities involving the trigonometric functions.
5. Recognize the conic sections and their geometric properties.
6. Exploit graphical and analytical techniques in solving problems.
7. Analyze and explain the important elements of the mathematical solution of equations.
8. Recognize and use the vocabulary of vectors (vector, scalar, magnitude, direction) to perform arithmetic on vectors and to solve application problems.
9. Recognize polar coordinates and use them to draw graphs and plot points.
10. Be self-disciplined and dependable through daily consistent work.

Components and Weights of Semester Assignments:

A student in this class is expected to complete the following assignments:
1) 4 Regular Exams
2) Final Exam
3) Online Quizzes
4) Homework

- Test 1: 5%
- Test 2: 16%
- Test 3: 16%
- Test 4: 16%

**Final Exam: 25% (mandatory for all students!)**

- Online Quizzes: 12%
- Attendance: 5%
- Homework: 5%
- Total: 100%

**Note:** The percentage grade on the final exam (without extra credit) can be used to replace your lowest test score if it is better than your lowest test grade.
For Math 1330, all students must take the final. Exemption from final is not available for Math 1330 students.

**GRADING SCALE**

University of Houston standard grading scale will be used to determine your letter grade in this course.

**EXAM INFORMATION**

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.

Test 1 is over prerequisite material and will ONLINE at CASA (under “online assignments” tab). You have 2 attempts on it. To see what to expect on Test 1, take “practice test 1” under the online assignments tab at CASA.

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

<table>
<thead>
<tr>
<th>Test 1</th>
<th>Prerequisite Material</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test 2</td>
<td>Algebra review, Chapter 4</td>
</tr>
<tr>
<td>Test 3</td>
<td>Chapters 5 and 6</td>
</tr>
<tr>
<td>Test 4</td>
<td>Chapters 7 and 8</td>
</tr>
<tr>
<td>Final</td>
<td>Comprehensive (covers all sections; including vectors and polar curves)</td>
</tr>
</tbody>
</table>

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. Reservation generally begins 2 weeks prior to an exam; reserve a seat as soon as the scheduler opens up.

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. There are no retakes or makeups in this class.**

You can NOT use calculators during any of the exams; study accordingly.

**Final Exam:**

Final is comprehensive and mandatory for **ALL** students. **There is no “exemption” or “opt-out” from the final in Math 1330.** No make-ups/no excuses. **NO EARLY FINALS.**
Check your instructor’s website for final exam schedule. Final is given at CASA testing center. Reserve a seat for it when reservation begins. Your raw score on the final will be used to replace the lowest test score if it is better.

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 on the corresponding exam. 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 re-opened.

INSTRUCTIONS FOR QUIZZES

Online quizzes will be given regularly in this course.

- 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.
- You have 20 times to take each quiz.
- There is a 60 minute time limit for each quiz.
- All of the quizzes are open starting the first day of classes.
- Check your instructor’s website to see the topics covered on each quiz.
- There may be 2 or more quizzes due every week; check the due dates carefully.

There will be no makeup quizzes for any reason. Neither I, nor the 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 problems. The email link is on the CASA homepage.

INSTRUCTIONS FOR ATTENDANCE

- Attending every lecture is strongly recommended.
- Your instructor will take attendance in every lecture and post your total attendance grade on CASA at the end of the semester.

INSTRUCTIONS FOR HOMEWORK

- There may be one or more assignments every week (multiple choice).
• The homework problems and due dates will be posted on course website.
• You will submit your answers using “EMCF” tab at CASA before the due date.
• No late homework; no make ups on the homework.

LATE ASSIGNMENT AND MAKE-UP POLICY

This course is a cumulative course. You as a student need to keep up with the reading, quizzes, homework assignments and exams. Thus, late work or make-ups will not be accepted for any reason.

CSD ACCOMMODATIONS

A current Student Accommodation Form (SAF) must be presented in a timely manner for accommodations to be approved. No retroactive accommodations will be provided. Accommodations for undergraduate mathematics courses that could change the essential nature of the course or provide an unfair advantage to one student over another student will not be approved. Notably, in the event that calculators and/or formula sheets are allowed for all students in a course, then all students may have them. If, however, calculators and/or formula sheets are not allowed to anyone, then no one may have them. Accommodations that are listed on your SAF that would NOT change the essential nature of a course or provide an unfair advantage may be approved (e.g. an extra set of class notes for lecture, testing at CSD, extended time*). Please review these with your teacher during the conference hours for the class (not immediately before or after a lecture).

*If you run over the agreed upon extended time you will be penalized in proportion to the amount over.

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.

The instructor reserves the right to make changes on these policies. Any changes will be announced on the instructor’s website in a timely manner.

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