Math.1330: Precalculus
Course Syllabus – Spring 2019

Instructor Name: Dr. Blerina Xhabli
Instructor Email: blerina@math.uh.edu
Instructor Office/Hours: PGH 202 / TuTh 10:30am – 12:00pm
Instructor Homepage: https://www.math.uh.edu/~blerina/

Course/Section Number: Math.1330/2877
Lecture Time/Place: TuTh 02:30pm – 04:00pm / SW 102
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 website at 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 to access the learning materials by the end of the second week of school. Access code can be purchased online at casa.uh.edu or at the UH Book Store.**

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.uh.edu/nsm/math/undergraduate/course_policies/math13xx_policies/ 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.
- 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 link: http://www.uh.edu/nsm/math/undergraduate/course_policies/math13xx_policies/
2. 4 Regular Exams
3. Final Exam
4. Online Quizzes
5. Homework Assignments
6. Poppers – Attendance (in-class quizzes given daily starting the 3rd week of classes).

Components and Weights of Semester Assignments:

- Test 1: 4%
- Test 2: 16%
- Test 3: 16%
- Test 4: 16%
- Final Exam: 20%
- Online Quizzes: 12%
- Poppers: 8%
- Homework: 8%
- 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 Courseware accounts. **You can NOT use calculators during the tests; study accordingly.**

Test 1 is an online test over the pre-requisite material (algebra). You can find it under online assignments tab at CASA. You have only 2 attempts; we take your best score. It is recommended to take Practice Test 1 first to see what to expect on Test 1. You can review basic algebra topics to prepare for this test. You can find help videos for these topics on the course website (or here: https://online.math.uh.edu/courses/placement/Modules.html)

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.

The remaining tests (**Tests 2, 3, 4 and Final**) are taken at CASA testing center, with reservation. Use "Proctored Exams" tab at your CASA account to reserve a seat for it.

To see the exam dates and topics covered, please visit course 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 (except for test 4 which is 60 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. If the final exam grade is better than any of the previous test grades, then the final exam grade will automatically replace the lowest test grade even if you do not miss any test.

Final Exam: Final is **c**omprehensive 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	14 Jan-25Jan
Test 2	Chapter 4	6Feb-9Feb
Test 3	Chapter 5, 6.1, 6.2	7Mar-9Mar
Test 4	6.3, Chapter 7, Vectors, Chapter 8	13Apr-16Apr
Final	Comprehensive (covers all chapters)	2May-8May

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.

Buy the right Math.1330 bubbling form package 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. Each homework consists of multiple choice problems, the answers of which will be submitted electronically using "EMCF" tab in your CASA accounts.

Two of the lowest homework assignment scores will be dropped.
No late homework is accepted; there are 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.

Communication via Email

Your instructor will be sending class emails using PeopleSoft; you are responsible for checking your UH email. Per UH Policy, notices properly addressed and so sent (for example, via PeopleSoft) shall be presumed to have been received by the student. Thus, you are responsible for the content in emails sent to your UH account, regardless if your external (non-UH) email provider filters or blocks them. When emailing your instructor, it is recommended that you use a professional email address and include the course name on the subject line so that your instructor can address your questions accordingly. Please read this link for more on communication via email: EMAIL ETIQUETTE (https://www.math.uh.edu/~tomforde/Email-Etiquette.html).

IMPORTANT: *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.*

UH CAPS Statement

Counseling and Psychological Services (CAPS) can help students who are having difficulties managing stress, adjusting to college, or feeling sad and hopeless. You can reach CAPS (www.uh.edu/caps) by calling 713-743-5454 during and after business hours for routine appointments if you or someone you know is in crisis. No appointment is necessary for the "Let's Talk" program, a drop-in consultation service at convenient locations and hours around campus. http://www.uh.edu/caps/outreach/lets_talk.html

CSD Accommodations

Academic Adjustments/Auxiliary Aids: The University of Houston System complies with Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990, pertaining to the provision of reasonable academic adjustments/auxiliary aids for students who

have a disability. In accordance with Section 504 and ADA guidelines, University of Houston strives to provide reasonable academic adjustments/auxiliary aids to students who request and require them. If you believe that you have a disability requiring an academic adjustment and/or auxiliary aid, please visit The Center for Students with Disabilities (CSD) website at http://www.uh.edu/csd/ for more information.

Accommodation Forms

Students seeking academic adjustments/auxiliary aids must, in a timely manner (usually at the beginning of the semester), provide their instructor with a current Student Accommodation Form (SAF) from the CSD office before an approved accommodation can be implemented.

Details of this policy, and the corresponding responsibilities of the student are outlined in The Student Academic Adjustments/Auxiliary Aids Policy (01.D.09) document under [STEP 4: Student Submission (5.4.1 & 5.4.2), Page 6]. For more information please visit the Center for Students with Disabilities FAQs page.

Additionally, if a student is requesting a (CSD approved) testing accommodation, then the student will also complete a Request for Individualized Testing Accommodations (RITA) paper form to arrange for tests to be administered at the CSD office. CSD suggests that the student meet with their instructor during office hours and/or make an appointment to complete the RITA form to ensure confidentiality.

***Note:** RITA forms must be completed at least 48 hours in advance of the original test date. Please consult your counselor ahead of time to ensure that your tests are scheduled in a timely manner. Please keep in mind that if you run over the agreed upon time limit for your exam, you will be penalized in proportion to the amount of extra time taken.

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
- Vectors in the Plane

Chapter 8: Analytic Geometry

- Circles
- Ellipses
- Parabolas
- Hyperbolas
- Systems