Math 1314 Online
Calculus for Business and Life Sciences
Course Syllabus

Section number: This information applies to the online section of this course.
Prerequisites: Credit for or out of Math 1310, 1311, 1313, or 2311 or a satisfactory score on a placement exam. Students with prior credit for Math 1431 (Calculus) will not be permitted to enroll in or receive credit for Math 1314. May not apply to course or GPA requirements for a major or minor in natural sciences and mathematics.

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 course policies statement in your CASA account. You are responsible for knowing all of this information.

The information contained in this class syllabus is subject to change without notice.

ONLINE LIVE LECTURES

We will meet online MW 2:30 p.m. – 4 p.m. The link to the online classroom is in your CASA account.

Video recordings will be posted in the CASA calendar. Students are given an attendance grade for each week of the course. There will be attendance questions (see poppers section below) in each lecture. The grade is the determined by summing all points earned for a given week. Students who do NOT attend an online live meeting will be required to complete the questions given in the lecture video/notes by the end of that same week. Students get the questions by viewing the completed notes and watching the posted video.

NOTE: Students are responsible for any content and announcements given in the live online lectures. Videos of the lectures are posted after each class ends.

COMMUNICATION/EMAIL

Communication from student to instructor, outside of class, will be addressed to the student via their UH email. Notices sent shall be presumed to have been received by the student. Thus, the student is responsible for the content in emails sent to his/her UH account, regardless if his/her external (non-UH) email provider filters or blocks them. Emails lost to external providers shall not be used as a justification to claim faculty are unresponsive/not communicating in any way.

LEARNING OBJECTIVES

Upon successful completion of this course students will be able to use Geogebra for curve sketching and graphical analysis. Differentiation and integrations of elementary functions will be expected along with interpretation of the numerical results. Students will be able to handle

certain topics in functions of several variables and will be competent in handling application problems in a business setting.

ACADEMIC HONESTY

University of Houston students are expected to adhere to the Academic Honesty Policy as described in the UH Undergraduate Catalog. "Academic dishonesty" means employing a method or technique or engaging in conduct in an academic endeavor that contravenes the standards of ethical integrity expected at the University of Houston or by a course instructor to fulfill any and all academic requirements. Academic dishonesty includes, but is not limited to, the following: *Plagiarism; Cheating and Unauthorized Group Work; Fabrication, Falsification, and Misrepresentation*; *Stealing and Abuse of Academic Materials; Complicity in Academic Dishonesty; Academic Misconduct.* Refer to https://www.uh.edu/provost/policies/honesty/_documents-honesty/academic-honesty-policy.pdf

and the UH Student Catalog for the definition of these terms and university's policy on Academic Dishonesty. Anyone caught cheating will receive sanctions as explained on these documents and will be reported to the department and Dean of Students Office for further disciplinary action. Sanctions may include, but are not limited to: a lowered grade, failure on the examination or assignment in question, failure in the course, probation, suspension, or expulsion from the University of Houston, or a combination of these.

ASSESSMENT AND GRADING SCHEME

Test 1 (prerequisite): 8%
Three Regular Exams: 45% (15% each)
Final Exam: 20%
Online Quizzes: 14%
Daily Classroom Quizzes (Poppers): 5%
Homework: 8%
Total: 100%

Note: No make-up tests. The percentage grade on the final exam (raw score) can be used to replace your lowest test score (raw score).

GRADING SCALE

If "x" is your average, letter grades will be assigned as follows:

A	$93 \le x$	B-	$80 \le x < 83$	D+	$67 \le x < 70$
A-	$90 \le x < 93$	C+	$77 \le x < 80$	D	$63 \le x < 67$
B+	$87 \le x < 90$	C	$73 \le x < 77$	D-	$60 \le x < 63$
B	$83 \le x < 87$	C-	$70 \le x < 73$	F	below 60

Grades are NOT rounded up. So, for example, in order to earn an A as a letter grade, you must have an average that is 93.0% or better. 92.999999% is an A–.

POPPERS

- For each lecture starting on the third week of classes you will be asked a series of problems that will have to do with the recent lecture.
- The answers will be submitted online via your CASA account by the indicated due date. See the "EMCF" tab.
- The total number of questions for the course will be counted, 85% of the total number of questions will be the 100%. For example, if there are 5 questions each class for 24 classes, which is 120 questions. Your grade will be calculated out of 120(.85) = 102 points.

ONLINE QUIZZES

- **There is a Course Policies Quiz due at the very beginning of the semester which covers the information on this Syllabus and Course Policies on your instructor's website. Everyone must score a 100% on it to be able to see any other quizzes, practice tests and Test 1 on CASA.**
- The quizzes are located in the CASA website under the "Online Assignments" tab.
- The quizzes will close on the due dates indicated on CASA at 11:59 pm.
- Once a quiz closes, it will not reopen.
- One of the lowest quizzes will be dropped.

CASA HAS A FINITE NUMBER OF LOGGINS. DO NOT WAIT UNTIL THE EVENING OF THE DUE DATE TO COMPLETE THE QUIZ, AS YOU MAY NOT BE ABLE TO LOG IN, COMPLETE THE QUIZ OR HAVE OTHER TECHNICIAL ISSUES.

HOMEWORK

- Homework will be submitted online via your CASA account. See the link to the "Assigned Homework" page in your CASA account on how to submit homework.
- An equivalent of two homework scores will be dropped at the end of the semester.

LATE ASSIGNMENT, MAKE-UP AND INCOMPLETE POLICIES

- This course is a cumulative course. You as a student need to keep up with the course. Thus late work or make-ups will not be accepted. Hence, the following is calculated for the final grade:
  - An equivalent of two homework assignments will be dropped.
  - One of the lowest quizzes is dropped.
  - 85% of the total number of popper questions will be the 100%.
  - The final exam score will replace the lowest exam score out of four, only if it is higher than it.
- Students that register for a course late (or re-register if dropped because of financial aid issues) will be given no special consideration, remediation, tutorials, etc., and such students are responsible for all course content, meeting course deadlines, etc.

- 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.

EXAM INFORMATION

Test	Material Covered	Dates	Location	Attempts
Test 1	Prerequisite + Lesson 1	1/6 – 1/25	Online via your CASA Account	Two
Test 2	Lessons 2 – 8	2/23-2/26	@CASA Testing; Reservation Required	One
Test 3	Lesson 9 – 15	3/30-4/2	@CASA Testing; Reservation Required	One
Test 4	Lessons 16-24	4/25-4/27	@CASA Testing; Reservation Required	One
Final Exam	Comprehensive	5/4-5/8	@CASA Testing; Reservation Required	One

- For the tests given at CASA Testing, see the "Proctored Exams" tab in your CASA account for details and how to make a reservation.
- The exams given in CASA will consist of multiple choice questions.
- The scheduler will be available approximately 2 weeks prior to the start of the exam cycle. Sign up for a slot asap.

PRACTICE TESTS

- Each exam has a practice exam. Ten percent of your practice test score will be added to your exam score as bonus.
- Practice exams are taken via your CASA account and can be found under the "Online Assignments" tab.
- Each practice exam covers the material that each respective exam covers.
- Practice exams will close on the due dates indicated on CASA at 11:59 pm. The open dates are indicated on CASA as well.
- You have 20 attempts at each practice exam.
- There is a 120 minute time limit for each practice exam.

DISCUSSION BOARD

- There is a class discussion board located in your CASA account at http://www.casa.uh.edu on the Welcome Page. It is to receive or give help related to course content.
- You may use MathJax to type equations. Here is a list of some commands. https://www.math.uh.edu/~bekki/Using%20MathJax%20on%20Courseware%20Discussion%20Board.pdf

REQUIRED READING

- See your CASA account link for this course.
- The textbook and additional help materials will be made available by logging into CourseWare at http://www.casa.uh.edu . The 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 deadline indicated in your CASA account to continue accessing the course learning materials. A Course Access Code must be purchased from the University Bookstore.

COMPUTER REQUIREMENT

- Geogebra, a free program to everyone, and will be required to do a lot of the problems in this course. It may be downloaded at https://www.geogebra.org/download. Scroll down to Geogebra Classic 5 and download the one that applies to you.
- This program will be available to you for your exams at CASA Testing.

EXEMPTION FROM FINAL EXAM

- If your letter grade calculated by the Letter Grade Calculator in your CASA account is a B- or better on the first day of opt out (see your CASA account for opt out dates) and you have completed the teacher evaluation, you will be able to opt out of the Final Exam. Otherwise you will be required to take the Final Exam, which also requires a CASA reservation. If you choose to exempt, you may not change your mind after the deadline has passed.
- Instructions on how to opt out will be provided to you in class and via email from your instructor towards the end of the semester.

TUTORING OPTIONS AVAILABLE:

- For help with any pre-requisite materials, you can log on to your CASA account , then choose MATH PLACEMENT from your course listing and then choose Help Videos
- For help on any Lessons, you can log on to your CASA account , then click on Appendix B then B.4 Video Lessons
- CASA Tutoring http://www.uh.edu/casa/tutoring-center/
- LAUNCH Tutoring http://www.uh.edu/ussc/launch/

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 adjustments/auxiliary aid, please visit The Center for Students with DisABILITIES (CSD) website at http://www.uh.edu/csd/ for more information.

ACCOMMODATIONS 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) (http://www.uh.edu/csd/services/online_accommodation_form.html) 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) (http://www.uh.edu/af/universityservices/policies/sam/1GenAdmin/1D9.pdf) 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 (http://www.uh.edu/csd/services/faq_online_form.html) 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. **Students should bring a copy of their approved SAF form when meeting with the instructor to complete a RITA form.**

*Note: RITA forms must be completed at least 48 hours in advance of the original test date. Please consult your counselor (http://www.uh.edu/csd/about/staff.html) ahead of time to ensure that your tests are scheduled in a timely manner. **Please keep in mind that if you run over the allotted time indicated on your RITA form, then your exam score will be reduced 1 percentage point for each minute over.**

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 or 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

Math 1314 – Topics List

Finding and Using Regression Models

Finding Limits and Derivatives

- Finding Limits
- Continuity

- Average Rate of Change
- Limit Definition of the Derivative
- Finding Derivatives Using Rules and Using Technology

Applications of Derivatives
- Rate of Change and Average Rate of Change Problems
- Break-Even Analysis and Market Equilibrium
- Marginal Analysis
- Average Cost and Marginal Average Cost Functions
- Elasticity of Demand
- Exponential Models
- Analyzing Polynomial Functions
- Analyzing Other Types of Functions
- Optimization

Integration
- Riemann Sums (by hand)
- Riemann Sums, Upper Sums and Lower Sums (using technology)
- Indefinite Integrals
- Definite Integrals (by hand and using technology)

Applications of Integration
- Basic Applications
- Average Value of a Function
- Area Between Two Curves
- Producers' Surplus and Consumers' Surplus
- Probability

Functions of Several Variables
- Evaluating Functions of Several Variables
- Finding Domain of a Function of Several Variables
- Finding Partial Derivatives
- Optimizing Functions of Two Variables