

COURSE SYLLABUS

Spring 2019
Math 1431
Calculus 1
Jennifer J May

The information contained in this class syllabus is subject to change without notice. Students are expected to be aware of any additional course policies presented by the instructor during the course.

Instructor: Jennifer J May, email: jen@math.uh.edu , webpage: www.math.uh.edu/~jen

Office Hours: ONLINE : Wednesdays from 6 - 7:30 PM or by appointment

Course Homepage: <http://www.casa.uh.edu>

Learning Objectives

Upon successful completion of this course, students will understand and be able to apply the ideas of differential and integral calculus to problems involving instantaneous rates of change, properties of curves, areas bounded by curves, and motions of accelerated bodies. They will develop proficiency in the rules and techniques of single-variable calculus, including derivatives of various combinations of functions, the chain rule, substitution, the mean value theorems, and the fundamental theorem of calculus. Students will be able to use graphical information and symbolic expression simultaneously in solving mathematical problems. They will be able to translate ordinary language descriptions of problems into mathematical expression, derive solutions by rigorous mathematical methods, interpret their results, and explain them.

This course has a corresponding recitation that does not have a separate grade. Lecture is 3 hours per week and Lab (recitation) is also 3 hours. The lab hours are an extension of lecture and an opportunity to work on homework and practice extra problems to prepare you for exam day. These lab sessions are mandatory and are a portion of your overall grade calculation.

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](#)

HONOR PRINCIPLE

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 [UH Academic Honesty website](#) 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 for further disciplinary action. The sanctions for confirmed violations of this policy shall be commensurate with the nature of the offense and with the record of the student regarding any previous infractions. 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. Students may not receive a W for courses in which they have been found in violation of the Academic Honesty Policy. If a W is received prior to a finding of policy violation, the student will become liable for the Academic Honesty penalty, including F grades.

Major Assignments/Exams

ASSESSMENTS

Tests 1, 2, 3, 4 - 12% each

Final exam- 22%

Written Homework – 8%

Lab Average (will appear in the CASA gradebook as Test 5) – 7% comes from:

- Labquizzes
- Discussion Board
- EMCF (Multiple choice homeworks)

Online Quizzes - 10%

In-class Poppers and Attendance - 5% [done online with instructor]

Note: The percentage grade on the final exam can be used to replace your lowest test score.

GRADING SCALE

University of Houston standard grading scale will be used to determine your letter grade in this course. If x is your semester numerical score, then your grade will be:

A	$x \geq 93$	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–	$60 \leq x < 63$

B	$83 \leq x < 87$	C–	$70 \leq x < 73$	F	Below 60
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It is the student's responsibility to withdraw from the course. Your instructor cannot do this for you. You are **STRONGLY** encouraged to talk with your advisor, your TA and your instructor **prior** to withdrawal.

****EXTRA RECITATION SECTION**

Extra recitation sessions are held for one hour each week and begin on the second week of classes; all students are invited to be part of them. The schedule is posted on the course page on your class CASA page. You do not need to sign up or register, just turn up at your chosen time. These sessions provide the opportunity to participate in problem-solving activities designed to enhance your understanding and mastery of the course content. **A required diagnostic test must be taken in CASA before January 23rd. If you fail to take this test you will be given a grade of zero for the test and automatically assigned to an extra recitation section. Based on your score on this test, you will be notified whether or not you will be required to attend one extra recitation session each week for the remainder of the semester.** If you are identified within this group, the extra recitation attendance will account for 50% of your lecture attendance grade. Extra recitation attendance will be graded as the percentage of required sessions attended, for example: 7/10 sessions attended = 70%.

NOTE: all times are Central Standard Time

FORMAT of MATH 1431 ONLINE:

- Student should spend 1 – 2 hours a week watching the recorded CONTENT VIDEOS (link located in CASA account) and taking notes. Reworking each problem and / or asking for help on any examples
- Student should then try the suggested problems on the HOMEWORK page (link located in CASA account), working some from each section until he / she feels ready to try a quiz
- Student should then try the corresponding quiz to test self (located in the ONLINE ASSIGNMENTS in CASA)
- THEN Student should work on the homework that is due (located in the ASSIGNMENTS tab in CASA)
- In between these steps the student should attend LIVE ONLINE SESSIONS conducting 4 times a week to ask for help, clarification, and extra practice preparing for exams. [save this link for all live sessions]
- Live Sessions are every Monday – Thursday from 7pm – 9pm Central Time with the exception of the following dates: TBD

INFORMATION ABOUT ONLINE SESSIONS WITH INSTRUCTOR:

- Live sessions with the instructor will be on Tuesdays and Wednesdays from 7 – 8:15 PM. (staying until 9pm when needed) Your first LIVE SESSION will be on Tuesday January 15th.
- Student is to sign in as Last Name_First Name (example. Jennifer May would log in as May_Jennifer)
- Pop questions will appear during each live lecture starting the 2nd week of class

- The purpose of the poppers is to give the students a chance to practice problems with their instructor and receive an “attendance” grade for the class.
- No popper paper is necessary for the online course.
- Poppers are answered under the EMCF tab of CASA. To see the questions you must either attend the live session via Blackboard Collaborate [classroom link] or view the recording via the video link in the missed date on the CASA calendar within 48 hrs of missed session.
- 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.
- These live sessions are done under the premise that the student has already watched the content video corresponding to that day’s section. That way in the live session the class can concentrate on the more challenging problems.
- Completing poppers or sharing poppers answers for/with another student is in violation of the University’s Academic Policy. Violations are reported to the DHO (the departmental hearing officer for the Honor Board).

INFORMATION ABOUT LIVE LAB SESSIONS:

- Student is to sign in as Last Name_First Name (example. Jennifer May would log in as May_Jennifer)
- The purpose of the lab session is to give the students a chance to practice problems with their TA and receive any extra help needed to be successful in the course. Students should come prepared to ask questions.
- The first Lab Session will be on Thursday, the 17th of January
- Lab sessions will be every Monday and Thursday except for school holidays.
- Starting week 2:
 - Lab quizzes are given during every lab session
 - 5 questions each lab session, closes 48 hrs later.
 - If student misses a lab session, student has 48 hrs to watch missed lab and answer the 5 lab questions in the EMCF tab.
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DISCUSSION BOARD PARTICIPATION

- We are an online community – you are NOT doing this alone, but because you chose to do this course online you must need the flexibility of WHEN you do it... thus, participation in the discussion board is very important!
- There is a class discussion board located on CourseWare at <http://www.casa.uh.edu> .
- Students are expected to post a question or reply to a post every week for your discussion board participation grade. Please do not force me to put a number value on how often. It is part of your job as a member of this team.
- Students are responsible for the content covered in the discussion board, just as if the question was asked in class.
- You can also link a forum to your email so you can get updates when a new post is available.
- Please only post on the titles your instructor creates. Creating your own separate post may result in a “no response”
- Posts must be related to the course content to count towards your grade.
- See https://www.math.uh.edu/~bekki/Math1431and1432_usingCASA.pdf for instructions on

- using the discussion board.
- When posting or replying to the discussion board remember that live people are on the other end that have real feelings and CAN NOT read your mind – so be specific in how you need help.
 - You must include a picture of your question. Please see [video](#) if you need help.
 - The discussion board supports MATHJAX and there are easy keyboard shortcuts to type math, here's a few examples: [Mathjax](#)
 - Students are not allowed to use GROUP ME for this week. Any violations will be brought to the Honor Board and considered “inappropriate collaboration” as the discussion board is the appropriated forum for this course.
 - NOTE: the discussion board is for classroom and content questions. Email should be reserved ONLY for personal issues. Else, please post to the discussion board so that everyone benefit from the question being asked.
 - Your discussion board grade will count as a participation grade and be included in your lab average. It will appear in the gradebook as 2 lab grades: Labquiz98 and Labquiz99.

INSTRUCTIONS FOR 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.
- You have 20 times to take each quiz.
- There is a 60 minute time limit for each quiz.
- The following table shows what sections each quiz covers.

Quiz	Sections Covered	Quiz	Sections Covered
Quiz 1	1.2	Quiz 14	3.6
Quiz 2	1.3	Quiz 15	4.1
Quiz 3	1.4	Quiz 16	4.2-4.3
Quiz 4	1.4-1.5	Quiz 17	4.4
Quiz 5	1.6	Quiz 18	4.5
Quiz 6	2.1	Quiz 19	5.1
Quiz 7	2.2	Quiz 20	5.2 & review
Quiz 8	2.3	Quiz 21	5.3
Quiz 9	2.4	Quiz 22	6.1
Quiz 10	3.1	Quiz 23	6.2
Quiz 11	3.2-3.3	Quiz 24	6.3
Quiz 12	3.4	Quiz 25	6.3
Quiz 13	3.5	Quiz 26	6.4

INSTRUCTIONS FOR HOMEWORK:

- There are two types of homework for this online course:
 - **Written homework:**
 - WHW can be found on your instructor's CASA page under the ASSIGNMENTS tab and will contain problems from the textbook and / or assigned problems according to the instructor and turned in according to due dates in CASA. Written homework must be turned in on appropriate form with all work shown for full credit.
 - Written homework, problems from the textbook or assigned according to the instructor and turned in as one pdf in the assignments tab in your CASA account. Failure to submit correctly and on time will result in a 0. No exceptions. See your CASA calendar for your due date – do not wait until the last minute to try to upload however, technical difficulties are no excuse for late homework.
 - See https://www.math.uh.edu/~bekki/Math1431and1432_usingCASA.pdf for how to upload the homework.
 - One written homework will be excused at the end of the semester
 - **Multiple choice homework:**
 - EHW can be found under the EMCF tab and labeled EHW 1, EHW 2, etc... This problems are submitted in the EMCF and you are encouraged to copy and work through these as part of your lab session.
 - EHW, labquizzes and the discussion board grades are all under your “lab average” and 2 of these assignments will be excused at the end of the semester.
 - Late homework will not be accepted.

LATE ASSIGNMENT, MAKE-UP AND INCOMPLETE POLICIES

- 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. **In case of late enrollment or re-registration after being dropped:** No make ups will be provided for assignments missed during the “no access to the course” period due to late enrollment or being dropped. Similarly, if students lose access to CASA for not entering access code by the deadline, there will be no make ups for the assignments they missed during that period.
- The temporary grade of I (incomplete) is a conditional and temporary grade assigned when students for non-academic reasons beyond their control have not completed a relatively small part of all requirements for a course. The student must:
 - be currently passing the course or have a reasonable chance of passing the course, in the judgment of the instructor;
 - contact the instructor immediately regarding the reasons that prevent the student from completing the course, final assignment and/or final examination;
 - initiate the request for an I grade within 90 days of the posting of the course grade;
 - make arrangements with the instructor to complete the course requirements, if assigned;
 - understand that the only way to have an I grade changed to a passing grade is to fulfill course requirements in accordance with the conditions specified by the instructor;
 - understand that the grade of I may be changed only to another letter grade. If the student does not complete the course requirements in the time allotted (a maximum of one year) the I grade will convert to an F grade and will be noted as a lapsed incomplete on the student's transcript. An I grade once lapsed to an F grade may not be changed to a grade of W; and

- not re-enroll (re-register) for the courses in which their grade is currently recorded as an I. Even when the conditions for fulfilling the course requirements include participation in all or part of the same course in another semester, the student must not re-enroll (re-register) for the course.

EXAM INFORMATION

Diagnostic Exam: Covers pre-requisite materials and will be in the CASA testing center **January 14-23. Failure to take this quiz automatically enrolls you in the extra lab session.**

Midterm testing dates:

Test 1: February 7-9

Test 2: February 28 - March 2

Test 3: March 28-30

Test 4: April 18-20

Final Exam: Covers chapters 1 through 6 (comprehensive) and will be in the CASA testing center **May 5 – 9**

- The tests will be given in CASA located on the second floor of Garrison or in CBB or in AH, see the exam scheduler for details.
- You can access the scheduler for these exams by logging into Courseware.
- The exams given in CASA will consist of both multiple choice and written questions.
- The multiple-choice questions will be machine graded.
- The written questions (free response) will be graded by the instructors and teaching assistants.
- There will be a practice test on Courseware for each exam. 5% of your practice test score will be added to your exam score as bonus. The due date for practice exams is the day before the exam period begins.
- The scheduler will be available approximately 2 weeks prior to the start of the exam cycle. Exam dates are listed above.
- All instructors provide a written review for each exam and students will work review to submit as a labquiz grade each testing period. Online Students will scan a copy of this review before submitting to as a WHW grade in the assignments tab the week of the exam.

PROCTORING SERVICES

For students that live more than 50 miles from the main campus, the University of Houston's Online & Special Programs (OSP) office facilitates all proctoring services for online students at the University. Information about proctoring and how to submit a proctoring request form can be found on the [Proctoring Services page](#). Prior to submitting a request, students should read and understand the proctoring processes and requirements.

Questions or concerns about proctoring services can be directed to the OSP office at 713.743.3327 or proctoring@uh.edu.

Hours of operation are Monday-Friday, 8:00 a.m.- 5:00 p.m., except for University holidays

REQUIRED READING

- Course webpage: <http://www.casa.uh.edu>
- The textbook, online quizzes, 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 end of the second week of class to continue accessing the course learning materials. A Course Access Code must be purchased for \$55 from the University Bookstore.

TUTORING OPTIONS

- 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
- SEP [workshop schedule](#)
- CASA [Tutoring Center](#)
- LAUNCH [Website](#)

Student Success Program

This course is part of a Student Success Program which includes activities beyond the traditional lecture and recitation study groups. This program will provide early assistance to students who are having academic difficulties in the course and offer worthwhile enrichment opportunities for all students. Currently, this program is supported by a Howard Hughes Medical Institute (HHMI) Undergraduate Science Education Grant. For more info: <http://www.uh.edu/nsm/scholar-enrichment/>

List of discussion/lecture topics

Chapter 1 Limits and Continuity

- 1.1 A Review of Functions
- 1.2 An Intuitive Introduction to Limits
- 1.3 Definition of Limit and Arithmetic Rules
- 1.4 Continuity
- 1.5 The Intermediate Value Theorem
- 1.6 Limits of Trigonometric Functions and the Pinching Theorem

Chapter 2 Differentiation

- 2.1 The Definition of the Derivative
- 2.2 Derivatives of Polynomials and Trigonometric Functions
- 2.3 Differentiation Rules
- 2.4 Implicit Differentiation

Chapter 3 Applications of the Derivative

- 3.1 Related Rates
- 3.2 The Mean-Value Theorem
- 3.3 Intervals of Increase and Decrease
- 3.4 Extreme Values
- 3.5 Concavity and Points of Inflection
- 3.6 Curve Sketching

Chapter 4 The Transcendental Functions

- 4.1 Inverse Functions
- 4.2 The Exponential Function
- 4.3 Natural Logarithm Function
- 4.4 Inverse Trigonometric Functions
- 4.5 Hyperbolic Functions

Chapter 5 Further Applications of the Derivative

- 5.1 Optimization
- 5.2 Differentials
- 5.3 L'Hospital's Rule

Chapter 6 Integration

- 6.1 The Definite Integral
- 6.2 The Fundamental Theorem of Calculus
- 6.3 Basic Integration Rules
- 6.4 Integration by Substitution

STUDENT DISSABILITY ACCOMMODATIONS AND SERVICES

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 \(CSD\)](http://www.uh.edu/csd/) website at <http://www.uh.edu/csd/> for more information.

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 \(CSD\)](http://www.uh.edu/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 an approved current Student Accommodation Form (paper copy or [online version](#), as appropriate) 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.

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