# Math.1432-14639: Calculus II Course Syllabus - Fall 2018

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Course Number: Math.1432 Section Number: 14639

**Lecture Time/Place:** MWF 11:00am – 12:00pm/ F 160

**Delivery format:** Face to face **Prerequisites:** Math.1431

**Course Description:** Calculus of transcendental functions: additional techniques and applications of integration, indeterminate forms, improper integrals, Taylor's formula, and infinite series.

**Textbook:** The learning materials for Math 1432, including the textbook, are available online in electronic form (PDF) through <u>CASA</u> website at <u>www.casa.uh.edu</u>. **All students are required to purchase a Course Access Code at the Book Store to access the learning materials.** All the students have free access to <u>CASA</u> for the first two weeks of classes with deadline September 3<sup>rd</sup>. To have continuing access to all course materials at <u>CASA</u>, the students need to enter the course access code, which should be purchased for about \$55 from the University Bookstore.

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.

Upon successful completion of this course, students will understand and be able to apply the ideas of differential and integral calculus to any functions, polar coordinates and parametric curves. They will develop skill in techniques and further applications of integration. They will understand convergence of sequences and series and be able to test for convergence. They will understand and appreciate the importance of power series and Taylor polynomials. 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.

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

- 1. 4 Regular Exams
- 2. Final Exam
- 3. Online Quizzes
- 4. Homework Assignments
- 5. Poppers/Lab Quizzes (in-class quizzes given daily during the lecture/recitation sessions).

# **Components and Weights of Semester Assignments:**

• Test 1: 5%

• Test 2: 15%

• Test 3: 15%

• Test 4: 15%

• Final Exam: 25%

• Online Quizzes: 10%

• Lab Quizzes: 6%

• Homework(written and emcfs): 6%

• Poppers(attendance): 3%

**Grading Scale:** If you call your average "x":

**A**  $93 \le x \le 100$  **B**-  $80 \le x < 83$  **D**+  $67 \le x < 70$  **A**-  $90 \le x < 93$  **C**+  $77 \le x < 80$  **D**  $60 \le x < 67$ 

**B**+ 87 < x < 90 **C** 73 < x < 77 **F** 0 < x < 60

**B** 83 < x < 87 **C-** 70 < x < 73

**Poppers:** 3% of your average will come from poppers. Popper questions will be given daily during the lecture period, beginning the first day of 3<sup>rd</sup> week of classes. You need to purchase a course packet of Popper Forms for Math 1432 with your section number from the BOOK STORE. You must bring one of these forms to class every day beginning week 3. No other form will be accepted. Questions will be asked in lecture at random times. You will mark your answers on your form and drop the form in a box at the end of class. Your forms will not be returned. Do not turn in poppers for class mates who are not in class. If you do so, that popper will not be accepted for any students involved. Repeated offenses might be reported to the departmental hearing officer (see UH Academic Honesty Policy).

**Lab Quizzes:** 6% of your average will come from lab quizzes, which will be given during recitation sessions beginning the 2<sup>nd</sup> week of classes. Lab quiz grades are out of 10 points each. I will drop the one lowest lab quiz grade at the end of the semester.

**Homework:** 6% of your average will come from homework (written and EMCF). Written homework is submitted in your recitation session beginning 2<sup>nd</sup> week of classes. "EMCF" stands for "Electronic Multiple Choice Form". EMCF assignments are answered on CourseWare using the EMCF tab. The EMCF assignment questions will be posted on the course calendar page on CourseWare at <a href="http://www.casa.uh.edu">http://www.casa.uh.edu</a>. Homework grades are out of 10 points each. I will drop the lowest homework grade at the end of the semester.

Online Quizzes: 10% of your average will come from online quizzes. There will be about two online quizzes given each week. You can attempt these quizzes up to 20 times, and the highest grade will be used for your score. You can access the quizzes by logging into CASA at <a href="http://www.casa.uh.edu">http://www.casa.uh.edu</a>. Quizzes will not reopen once they have closed. I will drop the one lowest online quiz grade at the end of the semester. You should expect 2-3 quizzes per week.

**Discussion Board Participation:** There is a class discussion board located on CourseWare at <a href="http://www.casa.uh.edu">http://www.casa.uh.edu</a>. Students are expected to post a question or reply to a post once a week. The participation is strongly recommended. Posts must be related to the course content to count.

**Exams:** All sections of Math 1432 take common exams. Four regular exams will be given during the semester. The first exam is an online exam that will be available by the first day of class at <a href="http://www.casa.uh.edu">http://www.casa.uh.edu</a>. You have no more than two attempts for exam one. The other three exams will be given in <a href="CASA">CASA</a> (note the test location when you register). You can access the scheduler for these exams by logging on to <a href="CASA">CASA</a>. The scheduler will be available 2 weeks prior to the start of the exam cycle. **There are no make-ups for missed exams.** Your final exam grade will replace your lowest test grade if it is higher.

**Final Exam:** A comprehensive final exam will be given in CASA. The final exam is MANDATORY for this class.

#### **Exam Dates:**

Test 1 (online) Due 8/29/18 at 11:59pm Test 2 (50 minutes) 9/21, 9/22, and 9/24/18 Test 3 (50 min) 10/13, 10/15, and 10/16/18 Test 4 (50 min) 11/10, 11/12, and 11/13/18 Final Exam (110 min) 12/9/18 – 12/12/18

## 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 guizzes 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.

**Grade Appeals:** If you want to appeal your grade on the free response portion of an exam, contact your teaching assistant or instructor within 5 business days after the exam grades are posted. Any alterations on your answer sheet will be considered an academic honesty violation (see Honor Principle paragraph on this syllabus). Grade appeals on any assignments should be made within 5 business days of the posting of the assignment grade.

**Attendance is Mandatory!!** Attendance will be taken in lab, and the daily poppers will be used to determine your attendance in lecture. Attending the lectures and labs are important for your learning and success in this class; I strongly recommend that you to do your best to attend both lectures and labs regularly.

#### **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 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/EmailEtiquette.html).

#### 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 <u>UH Academic Honesty website</u> 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 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.

#### **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 (<a href="www.uh.edu/caps">www.uh.edu/caps</a>) 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. <a href="http://www.uh.edu/caps/outreach/lets\_talk.html">http://www.uh.edu/caps/outreach/lets\_talk.html</a>

#### **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 <a href="http://www.uh.edu/csd/">http://www.uh.edu/csd/</a> 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.

# **Calculus II Topics List**

## Chapter 7 - Applications of Integration

- 7.1 Integration Review
- 7.2 Area
- 7.3 Volume
- 7.4 Centroids
- 7.5 Arc Length and Surface Area
- 7.6 Differential Equations and Exponential Growth/Decay
- 7.7 Improper Integrals

# Chapter 8 - Techniques of Integration

- 8.1 Integration by Parts
- 8.2 Powers of Trigonometric Functions
- 8.3 Trigonometric Substitutions
- 8.4 Integrating Rational Functions
- 8.5 Numerical Integration

## Chapter 9 - Sequences and Series

- 9.1 Sequences and Convergence
- 9.2 Numerical Series and Convergence
- 9.3 Tests for Convergence
- 9.4 The Power Series
- 9.5 The Taylor Series

## Chapter 10 - Polar Coordinates and Parametric Equations

- 10.1 Polar Coordinates and Polar Curves
- 10.2 Area and Arc Length in Polar Coordinates
- 10.3 Parametric Equations
- 10.4 Derivatives for Curves Given Parametrically
- 10.5 Arc Length for Curves Given Parametrically
- 10.6 Surface Area