

# MATH 2414 – CALCULUS II

## COURSE SYLLABUS, SUMMER 2022

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**Course Instructor:** Dr. Blerina Xhabli

**Email:** bxhabli@central.uh.edu

**Course/Section Number:** Math.2414/11062

**Course Format:** Asynchronous Online

**Live Session Time/Place:** Wednesday 04:30pm – 06:00pm / TEAMS

**Lab Time/Place:** Tuesday/Thursday 04:30pm – 06:00pm / TEAMS

**Office Hours:** Online TBA and/or by appointment

**Course Homepage:** [www.casa.uh.edu](http://www.casa.uh.edu) and MATH2414-11062-SU22 TEAM

**Course Calendar:** <https://www.math.uh.edu/~blerina/Math2414SU22.html>

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### LEARNING OBJECTIVE

Upon successful completion of this course, students will master the following:

- Integration Techniques
- Applications of Integration
- Sequences and Series
- Polar Coordinates
- Parametric Equations

### COURSE HOMEPAGE/CASA

The course homepage for this class is <http://www.casa.uh.edu>. **Every student is expected to create a CASA account by the first day of classes.** It is highly recommended that you check the CASA class page calendar at least once a day. This will allow you to stay up to date with assignments, homework and announcements. This page will provide you with access to the textbook, homework assignments, the syllabus, the course calendar, online lectures and useful links.

### COURSE LEARNING MATERIALS

The textbook, online quizzes, EMCF assignments, and additional help materials will be made available by logging into CourseWare/CASA 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 CASA by the first day of the third week of class to continue accessing the course learning materials. A Course Access Code can be purchased online for about \$55 from the University Bookstore.

## TECHNOLOGY REQUIREMENTS

Computer and internet access is required for this course. In summary, students will need:

- a functioning and updated Computer (with microphone, speaker or earphones, and webcam)
- Reliable Internet Connection
- PDF viewer/Ability to watch mp4 files.
- Ability to log in to CASA for online assignments.
- Ability to access Microsoft TEAMS platform.

Note that all UH students have access to MS teams with their cougarnet ID.

## RESOURCES FOR ONLINE LEARNING

University of Houston is committed to student success, and provides information to optimize the online learning experience through our Power-On webpage. Please visit this webpage for a comprehensive set of resources, tools and tips including: obtaining access to the internet, AccessUH; requesting a laptop through the Laptop Loaner Program; using your smartphone as a webcam; and downloading Microsoft Office 365 at no cost. For assistance, contact UHOnline@uh.edu.

## COURSE DELIVERING FORMAT AND STRUCTURE

This course is taught **asynchronously**, which means there is no designated day or time assigned to the course (weekly synchronous sessions will be provided, such as virtual office hours or discussion groups). Asynchronous instruction generally involves accessing content, such as recorded video lectures, readings, discussion prompts, assignments, and assessments during a flexible time frame, with due dates as specified. **This course is not self-paced**; students are expected to follow assignment due dates as specified on CASA calendar.

A student enrolled in this class, is required to watch pre-recorded lecture videos and to take notes while watching. The lecture notes and pre-recorded lecture videos covering the course material will be posted on MATH2414 TEAM. Students are responsible for watching them in a timely manner.

Each lecture video has popper questions embedded in them. After watching the lecture videos, the student is required to submit the popper questions under the EMCF tab and to work on the corresponding online quizzes and homework. Furthermore, the student is strongly advised to read the textbook and complete the homework problems from the textbook, as required.

There will be **weekly live lecture review sessions** with the instructor for the students to attend. Live lecture discussion sessions will be delivered through our online Microsoft TEAMS classroom. The link to our online classroom can be found in this syllabus. Every student is automatically put on the MS Team of this course. It is recommended that you download the TEAMS application either in your mobile phones or your laptop/desktop for an easier access to the content of the course. Once you enter in our classroom, feel free to explore around. Use the Discussion Channel to ask question and reach out to your classmates.

These live lecture reviews will be held **every Wednesday 4:30pm - 6:00pm** and scheduled through **Live Review Sessions channel**. Every session will be recorded and you will be able to watch again

if needed as the link of the recorded lecture will be displayed in the exact place where it is posted. The best approach is to watch the missed session video before the next upcoming live session. **Attendance is not mandatory but it is recommended.**

Besides the weekly live lecture reviews, you will be having **Live Recitation/Lab Problem Sessions** conducted by the class teaching assistant. During these sessions, links of which can be found through **Live Recitation Sessions channel** in our team, you will be working with more practice problems in order to master the newly learned concepts. The teaching assistant will provide help in homework/quiz problems and provide more practice as time permits. The students are encouraged to post their questions ahead of time.

- Students are expected to behave professionally during the live lecture and lab sessions. Any student who do not follow the university's code of conduct might be removed from the session. All students are advised to mute the microphone before joining the sessions. By joining an online session, students give consent to be recorded on the live session video.
- Students will have only two places to concentrate on: CASA for course material, lecture notes and assignments/exams and TEAMS for online setting when necessary. All the course materials will be found in both places.

### **COVID-19 INFORMATION**

Students are encouraged to visit the University's COVID-19 website for important information including on-campus testing, vaccines, diagnosis and symptom protocols, campus cleaning and safety practices, report forms, and positive cases on campus. Please check the website throughout the semester for updates.

### **VACCINATIONS**

Data suggests that vaccination remains the best intervention for reliable protection against COVID-19. Students are asked to familiarize themselves with pertinent vaccine information, consult with their health care provider. The University strongly encourages all students, faculty and staff to be vaccinated.

### **REASONABLE ACADEMIC ADJUSTMENTS/AUXILIARY AIDS**

The University of Houston 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 disabled students. In accordance with Section 504 and ADA guidelines, UH 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 contact the Justin Dart Jr. Student Accessibility Center (formerly the Justin Dart, Jr. Center for Students with DisABILITIES).

### **EXCUSED ABSENCE POLICY**

Regular class attendance, participation, and engagement in coursework are important contributors to student success. Absences may be excused as provided in the University of Houston Undergrad-

uate Excused Absence Policy for reasons including: : medical illness of student or close relative, death of a close family member, legal or government proceeding that a student is obligated to attend, recognized professional and educational activities where the student is presenting, and University-sponsored activity or athletic competition. Under these policies, students with excused absences will be provided with an opportunity to make up any quiz, exam or other work that contributes to the course grade or a satisfactory alternative. Please read the full policy for details regarding reasons for excused absences, the approval process, and extended absences. Additional policies address absences related to military service, religious holy days, pregnancy and related conditions, and disability.

**Religious Holy Days:** Students whose religious beliefs prohibit class attendance or completion of specific assignments on designated dates may obtain an excused absence. To do so, please make a written request for an excused absence and submit it to your instructor as soon as possible, to allow the instructor to make arrangements. For more information, see the Student Handbook. <http://catalog.uh.edu/index.php>

## **RECORDING OF CLASS**

Students may not record all or part of class, livestream all or part of class, or make/distribute screen captures, without advanced written consent of the instructor. If you have or think you may have a disability such that you need to record class-related activities, please contact the Center for Students with DisABILITIES. If you have an accommodation to record class-related activities, those recordings may not be shared with any other student, whether in this course or not, or with any other person or on any other platform. Classes may be recorded by the instructor. Students may use instructor's recordings for their own studying and notetaking. Instructor's recordings are not authorized to be shared with anyone without the prior written approval of the instructor. Failure to comply with requirements regarding recordings will result in a disciplinary referral to the Dean of Students Office and may result in disciplinary action.

## **GRADES**

Final course grades are assigned according to student performance, using the guidelines below:

### **POPPERS/PARTICIPATION: 5%**

5% of this grade will come from a combination of popper questions given during the prerecorded lecture videos and participation in live lecture discussion/lab sessions. The answers will be submitted online through EMCF tab of your CASA accounts. Attending the lab sessions and posting questions in the lab channels may/will be counted as a plus towards your participation grade. (located on the TEAMS).

### **HOMEWORK: 7%**

Homework assignments consist of multiple choice portion (EMCF) and written portion. Written homework portion is to be submitted by scanning in your work and uploading it under Assignments on CASA. Multiple choice portion of the homework will be posted and answered on CASA using the EMCF tab.

### ONLINE QUIZZES: 15%

There will be two to three 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 <http://www.casa.uh.edu> and selecting Online Assignments. Quizzes will not reopen once they have closed. Two lowest online quiz grades will be dropped at the end of the semester.

### EXAMS: 73%

There will be 4 midterm exams and one comprehensive final exam. Test 1 will be delivered online through Online Assignments tab in your CASA accounts and all the other exams will be taken at CASA Testing Center(s) with reservation. 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.

#### Exam Schedule:

<i>Exam</i>	<i>Where</i>	<i>When</i>	<i>Percent of Average</i>	<i>Covers</i>
Test 1	Online	Thursday, 06/09	3%	Pre-requisite material
Test 2	CASA Testing Center	Saturday, 06/25	15%	Chapter 7
Test 3	CASA Testing Center	Saturday, 07/09	15%	Chapter 8
Test 4	CASA Testing Center	Saturday, 07/30	15%	Chapter 9
Final Exam	CASA Testing Center	Thursday, 08/11	25%	Chapter 7-10

Letter grades will be assigned as follows:

A	$x > 93$	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

### POPPER INSTRUCTIONS

Poppers might be given in two forms; embedded in pre-recorded lecture videos, or during live lecture review sessions:

- 1. Poppers embedded in Pre-recorded Lecture Videos:** Pre-recorded lecture videos have popper questions embedded in them; turn in the popper under EMCF tab at CASA under the corresponding title (for example, Section 8.1 poppers will be turned in under “Popper S81”.) Students get the popper questions by watching the posted video.
- 2. Poppers given during Live Lecture Review Sessions:** Your instructor might assign poppers during a live session. Live session recordings will be posted after the live session ends. If you can't attend the live session, you should watch the video ASAP and turn in the popper under the EMCF tab at CASA before the deadline if a popper is given during that session.

Popper due dates and times can be seen under EMCF tab at CASA. 15% of all popper questions will be dropped to cover for emergencies or unexpected events.

Sharing answers to popper questions (online, or at group chats, or at any other source) is considered an academic honesty policy violation. Please read the information regarding Academic Honesty below and do not share answers to poppers with your friends. Not only this is cheating; it also prevents other students from watching videos to learn the material and hence this violation is taken very seriously.

## ONLINE QUIZZES

Online quizzes will be given regularly in this course. The quizzes are located in your CASA accounts under the “Online Assignments” tab. The quizzes will close on the due dates given on CASA at 11:59 pm and will not re-open. If the quiz is still open when the time expires, your work will not be saved; you must submit any online assignment before 11:59pm. **Two lowest quizzes will be dropped.** The primary reason for this policy is to offset the impact of zero/low quiz scores due to emergencies on a student’s final course grade. You have 10 times to take each quiz and your highest score is retained as final score. There is a 60 minute time limit for most quizzes. Online quizzes will be given twice weekly in this course.

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 CASA is slow or overloaded. There is no amnesty period for the quizzes; the quizzes will NOT be reopened at the end of the semester. Please contact CASA tech support directly if you are having technical problems for your account.

## TEST INFORMATION

There will be 4 tests along with a mandatory final exam.

- **Test 1 is over the prerequisite material (Calculus 1).** It is recommended to take Practice Test 1 first to see what to expect on Test 1. You can review basic calculus topics to prepare for this test. You can find help videos for these topics on your CASA account and the MS teams.  
**Test 1 is considered a diagnostic test:** It is important to know that if you score low on Test 1 (below 60 without extra credit); you may consider going regularly to CASA and LAUNCH tutoring centers for additional help.
- **Tests 2, 3, 4 and Final Exam will be taken with reservation;** you must make a reservation to take a test prior to the first testing day. Follow the instructions on CASA under the Schedule Exams tab to reserve a time for your tests; print out the webpage showing your reservation time for your records and proof of your reservation. Reserve a time as soon as scheduler opens up.
- Read the information and policies about CASA Testing Center(s) under the Schedule Exam tab on CASA, and know what to expect on the test day.
- You have only ONE attempt on all tests and 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. Check course website for final exam schedule. Reserve a seat for it when reservation begins. Reservations are made online at CASA on a first come first serve basis. Make your travel plans so that you are available during the testing period.

If you miss a test without a valid excuse as described below, 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. The primary reason for this policy is to offset the impact of zero scores due to emergencies (medical, personal, or otherwise) on a student’s final course grade.

## PROCTORED EXAMS (ONLINE DISTANCE EDUCATION)

Exams for this course require proctoring. If a student lives more than 100 miles away from UH campus, and would like to use proctoring services in their area, the student must contact the instructor to get approval for using UH Proctoring Services. Student needs to send an email to the instructor specifying the request (and should include proof of residence) at least 2 weeks before the first day of a testing period. Once the instructor approves it, the student needs to contact UH proctoring services. Information regarding proctoring services for the University can be found on the Online and Special Programs webpage. Prior to requesting proctoring services, students should read and understand the outlined proctoring procedures. Students who received instructor approval can request proctoring services by completing the Proctoring Request Form on the website. 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, 8:00am-5:00pm.

## EXTRA CREDIT

There are practice tests and a practice final on Courseware. You can take the practice tests several times (up to 10 times) and we only take your best score. **5% of the highest score** will be applied to the relevant test as extra credit. Pay attention to the deadlines on these practice tests. In general, practice tests end before the exam period starts (except for Practice Test 1). To receive extra credit, students should take the practice tests before they close.

## HOMEWORK

Homework (mixed EMCF and Written portions) is going to be assigned per chapter covering all the material seen til the deadline. You need to submit your EMCF portion of your homework under the EMCF tab, and the written homework portion under the Assignments tab. Homework files will be uploaded on the described places. **NO late homework is accepted.**

## 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. Students are expected to check the calendar on CASA several

times a week and plan ahead so that they don't miss assignments. We drop some assignments primarily to offset the impact of zero/low scores due to emergencies on a student's final course grade. Hence, students should not expect to have an option to make up missed assignments unless in the case of an excused absence (See: Excused Absence Policy above).

If you miss a test, it may be possible to reschedule a test appointment during the testing period (depending on space availability) by using the online scheduler. Rescheduling must be made online in your account; your instructor is not responsible for finding seats or making reservations for you. At the end of the semester, your final exam score will replace your lowest midterm exam score if the former is higher. A missed test will result in a score of zero. If you miss two or more exams, only one of those scores will be replaced.) The primary reason for this policy is to offset the impact of zero/low test scores due to emergencies on a student's final course grade.

If requesting make up work (assignment or test) due to an excused absence: the student needs to contact the instructor in writing before the next class meeting (or as soon as possible afterwards with an explanation regarding why the notice could not be sent before the next class meeting). Read the Undergraduate Excused Absence Policy to see a list of documentations to support your request; follow the guidelines provided on this document to make your request. Your instructor will inform you of the decision in writing (via email).

**Note:** If students lose access to CASA temporarily due to not entering access code by the deadline, or being temporarily dropped from the course for non-payment, then they are responsible for any assignment deadlines that are missed.

## **SYLLABUS CHANGES**

Due to the changing nature of the COVID-19 pandemic and other unprecedented situations that might arise through whole semester, please note that the instructor may need to make modifications to the course syllabus and may do so at any time. Notice of such changes will be announced as quickly as possible and will be communicated by being posted on CASA and/or TEAMS.

## **COMMUNICATION VIA EMAIL**

Email communications related to this course will be sent to your Exchange Email Account which each University of Houston student receives. The Exchange mail server can be accessed via Outlook, which provides a single location for organizing and managing day-to-day information, from email and calendars to contacts and task lists. Exchange email accounts can be accessed by logging into Office 365 with your Cougarnet credentials or through Access UH. They can also be configured on IOS and Android mobile devices. Additional assistance can be found at the Get Help page.

Your instructor will be sending class emails regularly; you are responsible for checking your UH email. Make sure your email account is up to date. Per UH Policy, notices properly addressed and so sent via Exchange Email Account 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](#)



Any emails sent to the course TA or the instructor should have Math 2414, Section 11062 in the subject line. Also, if the instructor or the TA do not respond to your email within two working days, please resend the email. If you again do not hear from me within one more working day, it is likely that your email is not coming through and you should mention this in one of the online sessions before or after class. It is your responsibility to ensure that I and your TA are aware of issues you may have with the course; failure to effectively initiate timely communication is not a valid basis for a grade grievance and cannot be used as such.

### **ACADEMIC 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. **Posting answers for Poppers or Homework questions online** (at group chats or other online tools) **is considered an academic honesty violation.** Students are expected to know the difference between “getting/giving HELP on a problem” and “getting/giving answers to a problem”. If a student is caught sharing answers (in person or online), he/she might be reported to the departmental hearing officer for an academic honesty violation. If a student becomes aware of cheating or any other violations; that student is responsible for informing the instructor.

### **INCOMPLETES**

An incomplete (I) may be awarded to you by your teacher if the reason is a compelling NON-ACADEMIC reason, you have completed virtually all the course assignments AND you have a passing grade on this work.

Incompletes are NOT available to students who have done little of the coursework nor for students who have failing grades on what they have done. See your teacher to discuss eligibility and to fill out and sign the Incomplete contract. This is also required and must be signed in advance of an I being posted. Imminent failure is not an acceptable reason to be awarded an incomplete.

## **DROPPING/WITHDRAWING**

If a student wants to drop the class, it is his/her responsibility to do so by logging on [access.uh.edu](http://access.uh.edu) and completing the drop process before the drop deadline. Instructors cannot drop students for any reason.

## **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 (<http://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](http://www.uh.edu/caps/outreach/lets_talk.html)

## **HELPFUL INFORMATION**

**COVID-19 UPDATES:** <https://uh.edu/covid-19/>

**COOGS CARE:** <https://www.uh.edu/dsaes/coogscare/>

**LAPTOP CHECKOUT REQUESTS:**

<https://www.uh.edu/infotech/about/planning/offcampus/index.php#do-you-need-a-laptop>

**HEALTH FAQS:** <https://uh.edu/covid-19/faq/health-wellness-prevention-faqs/>

**STUDENT HEALTH CENTER:**

<https://uh.edu/class/english/lcc/current-students/student-healthcenter/index.php>

**The material covered in the course is listed below:**

### **Ch 7 Applications of Integration**

- 7.1 Integration Review
- 7.2 The Mean Value Theorem for Integrals
- 7.3 Area
- 7.4 Volume
- 7.5 Arc Length, Centroids, and Surface Area
- 7.6 Differential Equations and Exponential Growth/Decay

### **Ch 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 Improper Integrals
- 8.6 Numerical Integration

### **Ch 9 Sequences and Series**

- 9.1 Bounded Sets and Sequences
- 9.2 Convergence of Sequences
- 9.3 Numerical Series and Convergence
- 9.4 The Integral Test, Comparison Tests
- 9.5 The Ratio Test and the Root Test
- 9.6 Alternating Series and Absolute Convergence
- 9.7 The Power Series
- 9.8 The Taylor Series

### **Ch 10 Polar Coordinates and Parametric Equations**

- 10.1 Polar Coordinates
- 10.2 Graphing in Polar Coordinates
- 10.3 Area and Arc Length in Polar Coordinates
- 10.4 Curves Given Parametrically
- 10.5 Tangents to Curves Given Parametrically
- 10.6 Arc Length and Surface Area for Curves Given Parametrically