Course Syllabus

MATH 2414 - Integral Calculus - Fall 2020

Professor Contact Information

Instructor: Dr. Mohammad Ahsan
E-Mail: Mkahsan@utdallas.edu
Phone: 972-883-6336
Office: FO 2.410 F
Office Hours: By appointment
Office Platform: MS Teams

Instructor: Dr. Kelly Aman
E-Mail: Kelly.Aman@utdallas.edu
Phone: 972-883-6588 (leave message)
Office: FO 2.410 D
Office Hours: MWF 2pm-3pm, 6:30pm-7pm, by appt.
Office Platform: BBCollaborate 2414.701

Instructor: Dr. Bentley Garrett
E-Mail: btg032000@utdallas.edu
Phone: 972-883-4236
Office: FA 2.406
Office Hours: MW 5:30pm - 7pm, or by appt.
Office Platform: BB Collaborate 2414.009 or 2414.010

Instructor: Dr. Anh Tran
E-mail: att140830@utdallas.edu
Phone: 972-883-6587
Office: FO 3.704 F
Office Hours: MW 11am - Noon
Office Platform: BB Collaborate 2414.005

Instructor: Dr. Iris Alvarado
E-Mail: Iris.Alvarado@utdallas.edu
Phone: 972-883-4510
Offie: FN 2.208
Office Hours: By appointment
Office Platform: BB Collaborate 2414.001 or 2414.002

Instructor: Dr. Ronan Conlon
E-Mail: Ronan.Conlon@utdallas.edu
Phone:
Office: PHY 1.910
Office Hours: MW 10am - 11am
Office Platform: In-person

Instructor: Dr. Nasrin Sultana
E-Mail: Nasrin.Sultana@utdallas.edu
Phone: 972-883-3963
Office: FO 3.611
Office Hours: MWF 1pm - 2pm, or by appt.
Office Platform: BB Collaborate 2414.014 or 2414.015

Course Modality and Expectations

Section	Instructor	Mode	Platform	Time
001	Dr. Iris Alvarado	Online	BB Collab.	
002	Dr. Iris Alvarado	Online	BB Collab.	
004	Dr. Ronan Conlon	In-Person	SLC 1.102	MWF 9am - 9:50am
005	Dr. Anh Tran	Online	BB Collab.	
006	Dr. Kelly Aman	Online	BB Collab.	
007	Dr. Kelly Aman	Online	BB Collab.	
008	Dr. Kelly Aman	ONline	BB Collab.	
009	Dr. Bentley Garrett	Remote	BB Collab.	MWF 3pm - 3:50pm
010	Dr. Bentley Garrett	Remote	BB Collab.	MWF 4pm - 4:50pm
011	Dr. Mohammad Ahsan	Remote	MS Teams	MWF 8am - 8:50am
012	Dr. Mohammad Ahsan	Remote	MS Teams	MWF 9am - 9:50am
013	Dr. Kelly Aman	Online	BB Collab.	
014	Dr. Nasrin Sultana	Remote	BB Collab.	MWF 11am - 11:50am
015	Dr. Nasrin Sultana	Remote	BB Collab.	MWF 12pm - 12:50pm

Instructional Mode

- In Person: You will be attending classes on campus in the indicated room.
- Remote: Classes will be held online in realtime via the designated platform at the designated times.
- Online: Video lectures are posted online.

Course Platforms

- **Blackboard Collaborate:** This platform is integrated into the elearning system. Login to elearning and click the link for your lecture section (701 for Dr. Aman's office hours) or problem section. On the left-hand side of the course homepage you'll see a link to Blackboard Collaborate. Click that, and you will see any available sessions.
- **Microsoft Teams:**Your instructor or TA will provide details for how to access their sessions in Teams. Usually, this will be via a link in elearning on the Course Homepage for the specific section. You can join via a web browser, or you can download the app for desktop or mobile. You'll login using your UTD e-mail account and password.

Expectations

- **Attendance:** You are expected to attend lectures if enrolled in an in-person or remote section. You are also expected to attend and participate in your problem sections. The main purpose of problem sections is to allow you to get instant feedback, practice, and group interaction. Participation is vital for this, and you're hurting your own education by skipping it.
- **Assignments:**All students are expected to complete assignments by the due dates, regardless of instruction mode.

Asynchronous LearningGuidelines

If you choose to take the course asynchronously, then you will need to e-mail your instructor and inform them of this. The assignments in this course are already asynchronous, so the primary difference will be how lectures and problem sections are handled. Your instructor will provide access to recordings of their lectures.
More information about asynchronous learning can be found here:
https://www.utdallas.edu/fall-2020/asynchronous-access-for-fall-2020/

COVID-19 Guidelines and Resources

The information contained in the following link lists the University's COVID-19 resources for students and instructors of record.

Please see http://go.utdallas.edu/syllabus-policies.

Classroom Conduct Requirements Related to COVID-19

UT Dallas requires that all students must wear a face covering that covers the nose and mouth in all university buildings and classrooms. To help protect the health and safety of students, instructors, and the University community, students who choose not to wear a face covering may not attend class in person but may attend a course remotely. Anyone attending class in person without a face covering will be asked to put one on or leave. Instructors may end the class if anyone present refuses to appropriately wear a face covering for the duration of class. Students should also be sure they are at least six feet away from their fellow students and faculty, and seated in a seat that is designated to ensure that distance. Students who either refuse to wear face coverings appropriately

or to adhere to other social distancing protocols may face disciplinary action for Student Code of Conduct violations. Students who are unable to comply with the university policies including wearing a face covering should consult the Comets United webpage for further instructions.

Students who have tested positive for COVID-19 or may have been exposed should not attend class in person and should instead follow required disclosure notifications as posted on the university's website (see "What should I do if I become sick?" webpage)

Class Attendance

The University's attendance policy requirement is that individual faculty set their course attendance requirements. Regular and punctual class attendance is expected regardless of modality. Students who fail to attend class regularly are inviting scholastic difficulty. In some courses, instructors may have special attendance requirements; these should be made known to students during the first week of classes. These attendance requirements will not be used as part of grading (see Class Participation below for grading information).

In-person participation records may be used to assist the University or local public health authorities in performing COVID-19 occurrence monitoring. Please note – in-person attendance requires consistently adhering to University requirements, including wearing a face covering and other public safety requirements related to COVID-19, as presented in this syllabus. Failure to comply with these University requirements is a violation of the Student Code of Conduct.

Class Participation

Regular class participation is expected regardless of course modality. Students who fail to participate in class regularly are inviting scholastic difficulty. A portion of the grade for this course is directly tied to your participation in this class. It also includes engaging in group or other activities during class that solicit your feedback on homework assignments, readings, or materials covered in the lectures (and/or labs). Class participation is documented by faculty. Successful participation is defined as consistently adhering to University requirements, as presented in this syllabus. Failure to comply with these University requirements is a violation of the Student Code of Conduct.

Class Recordings

Students are expected to follow appropriate University policies and maintain the security of passwords used to access recorded lectures. Unless the Office of Student AccessAbility has approved the student to record the instruction, students are expressly prohibited from recording any part of this course. Recordings may not be published, reproduced, or shared with those not in the class, or uploaded to other online environments except to implement an approved Office of Student AccessAbility accommodation. Failure to comply with these University requirements is a violation of the Student Code of Conduct.

The instructor may record meetings of this course. Any recordings will be available to all students registered for this class as they are intended to supplement the classroom experience. Students are expected to follow appropriate University policies and maintain the security of passwords used to access recorded lectures. Unless the Office of Student AccessAbility has approved the student to record the instruction, students are expressly prohibited from recording any part of this course. Recordings may not be published, reproduced, or shared with those not in the class, or uploaded to

other online environments except to implement an approved Office of Student AccessAbility accommodation. If the instructor or a UTD school/department/office plans any other uses for the recordings, consent of the students identifiable in the recordings is required prior to such use unless an exception is allowed by law. Failure to comply with these University requirements is a violation of the Student Code of Conduct.

Class Materials

The instructor may provide class materials that will be made available to all students registered for this class as they are intended to supplement the classroom experience. These materials may be downloaded during the course, however, these materials are for registered students' use only. Classroom materials may not be reproduced or shared with those not in class, or uploaded to other online environments except to implement an approved Office of Student AccessAbility accommodation. Failure to comply with these University requirements is a violation of the Student Code of Conduct.

Course Pre-requisites, Co-requisites, and/or Other Restrictions

Prerequisite: A grade of C- or better in either MATH 2413 or MATH 2417 or equivalent.
Co-requisites: Enrollment in one of the following problem sections is **mandatory**.

Sec	Day	Time	Platform	TA Name	E-Mail
301	Tues	8:00am - 9:50am	BB Collab.	Faisal Ahmed	fxa170930@utdallas.edu
302	Thurs	8:00am - 9:50am	BB Collab.	Jorge Garcia	jsg170130@utdallas.edu
303	Tues	10:00am - 11:50am		Lashika Rajapaksha	lnr170001@utdallas.edu
304	Thurs	10:00am - 11:50am		Nirjal Sapkota	nxs167030@utdallas.edu
305	Tues	1:00pm - 2:50pm	BB Collab.	Faisal Ahmed	fxa170930@utdallas.edu
306	Thurs	1:00pm - 2:50pm		Mehdi Akhavan	mxa154630@utdallas.edu
307	Tues	3:00pm - 4:50pm	BB Collab.	Augustine Annan	axa179630@utdallas.edu
308	Thurs	3:00pm - 4:50pm	BB Collab.	Huiyi Chen	hxc180000@utdallas.edu
309	Tues	8:00am - 9:50am		Clememt Abugri	cxa180023@utdallas.edu
310	Thurs	8:00am - 9:50am	BB Collab.	Indrajith Wasala	ikw190000@utdallas.edu
311	Tues	1:00pm - 2:50pm	BB Collab.	Augustine Annan	axa179630@utdallas.edu
312	Thurs	1:00pm - 2:50pm	MS Teams	Jiaju Wu	jxw151230@utdallas.edu
313	Tues	3:00pm - 4:50pm		Behshid Kasmaie	bxk150730@utdallas.edu
314	Thurs	3:00pm - 4:50pm	BB Collab.	Jorge Garcia	jsg170130@utdallas.edu
315	Tues	8:00am - 9:50am	BB Collab.	Indrajith Wasala	ikw190000@utdallas.edu
317	Tues	1:00pm - 2:50pm		Behshid Kasmaie	bxk150730@utdallas.edu
318	Thurs	1:00pm - 2:50pm	BB Collab.	Xiaoli Ye	xxy160030@utdallas.edu
320	Thurs	8:00am - 9:50am	BB Collab.	Nisansala Wickramasinghe	wmw190000@utdallas.edu
321	Tues	10:00am - 11:50am		Mehdi Akhavan	mxa154630@utdallas.edu
322	Thurs	10:00am - 11:50am	BB Collab.	Xiaoli Ye	xxy160030@utdallas.edu
323	Tues	3:00pm - 4:50pm		Ali Mozumder	axm164531@utdallas.edu
324	Thurs	3:00pm - 4:50pm		Nirjal Sapkota	nxs167030@utdallas.edu
325	Tues	1:00pm - 2:50pm		Ali Mozumder	axm164531@utdallas.edu
326	Thurs	1:00pm - 2:50pm	BB Collab.	Huiyi Chen	hxc180000@utdallas.edu
327	Tues	8:00am - 9:50am	BB Collab.	Nisansala Wickramasinghe	wmw190000@utdallas.edu
328	Thurs	8:00am - 9:50am		Joseph Santantasio	jms190003@utdallas.edu
329	Tues	10:00am - 11:50am	MS Teams	Jiaju Wu	jxw151230@utdallas.edu

330	Thurs 10:00am - 11:50am		Lashika Rajapaksha	lnr170001@utdallas.edu
336	Thurs 10:00am - 11:50am		Clememt Abugri	cxa180023@utdallas.edu
337	Tues 1:00pm - 2:50pm		Sajith De Silva	grd160230@utdallas.edu

During problem section, the TA will:

- review class material and relevant material from prerequisite courses
- discuss recentGHW and exams
- work problems or have students work problems
- entertain questions

Course Description

Continuation of Math 2413. Course covers topics in integral calculus, sequences and series. Topics include techniques of integration, improper integrals, and applications. Polar coordinates, parametric equations, and arc length. Infinite sequences and series, tests for convergence, power series, radius of convergence and Taylor series. Three lecture hours and two discussion hours a week; registration in a problem section as well as the exam section is required with Math 2414. Not all MATH/STAT courses may be counted toward various degree plans. Please consult your degree plan to determine the appropriate MATH/STAT course requirements. Cannot be used to replace Math 2419.

Student Learning Objectives/Outcomes

(1) Students will be able to formulate real world problems into mathematical statements.
- Given a narrative description of a problem that lends itself to mathematical analysis, the student will clearly define any variables introduced and provide an appropriate function or formula relating those variables.

(2) Students will be able to develop solutions to mathematical problems at the level appropriate to each course.
- The student will evaluate an indefinite or definite integral of a continuous function.
- Students will determine the convergence or divergence of an improper integral or an infinite series.

(3) Students will be able to describe or demonstrate mathematical solutions either numerically or graphically.
- Students shall provide a qualitative, planar sketch which clearly indicates prescribed attributes.
- Students will provide numerical results in a prescribed manner, as a percent, an interval, or within a specified error bound.

Required Textbooks and Materials

- **Text:** Printed version: *Calculus, Early Transcendentals,* 8th Edition, by James Stewart.
  Options:1) Access code to Enhanced WebAssign (contains digital copy of the text.)
  Multi-term ISBN: 9781285858265
  Single-term ISBN: 9781337771399
  2) Loose leaf copy of the text bundled with Enhanced WebAssign access code
  ISBN: 9781305616691
  3) Hardbound text bundled with Enhanced WebAssign access code
  ISBN: 9781305597624

- **eLearning**: http://elearning.utdallas.edu You must enter your NETID username and password to logon to eLearning. You will need to access the course **MATH 2414.701: INTEGRAL CALCULUS.**Here, you will find the syllabus, problem sets, handouts, etc., as well as a record of your grades, and access to WebAssign (details below) Any messages/e-mails concerning the class will also appear on eLearning.

  Remote sessions and office hours will be held in their associated sections in elearning. The only exception is that the course coordinator, Dr. Aman, will be holding his office hours in 2414.701 on elearning so that any student can visit if needed.

  To send an email via eLearning, just click the Mail link/icon, click Compose Message, click Browse, and select the name.

Suggested Course Materials

- **Solutions manual:** The Student Solutions Manual is recommended.
- **Peer Lead Team Learning (PLTL):** PLTL is an academic support program sponsored by the Student Success Center. PLTL provides a learning experience for students who meet in small groups once a week with a Peer Leader who helps guide them through problems related to this course. PLTL sessions meet once a week for 1 1/2 hours with a group of up to eight students and one leader. You should be receiving an email explaining how to apply.
- **Calculators:** On very rare occasions, a scientific calculator is needed. Graphing calculators, programmable calculators, calculators with non-numeric displays, or any calculators that perform calculus operations are NOT ALLOWED on quizzes or exams.
- **Peer Tutoring - Student Success Center:**The SSC is offering online, drop-in tutoring for this course. For full information, check their website: https://www.utdallas.edu/studentsuccess/help-with-courses/peertutoring/

Assignments & Academic Calendar

There will be about 14 digital homework sets (DHWs), about 14 handwritten homework sets (GHWs), and about 11 quizzes. There will be three total exams, including the final. See the schedule later in the syllabus for all due dates.

DHWs will be assigned each week on WebAssign.These assignments will be posted each Monday at 8am and will be due by 11:59pm the following Monday. See below for details regarding WebAssign.

GHWs will be posted each week in pdf formon eLearning in the folder "GHW" in section 701. They will be posted at 8am on Monday, and due by 11:59pm the following Monday. See below for details regarding submitting GHW.

Quizzes will be held each week on WebAssign, except on exam weeks. Each quiz will be posted at 8am on Thursday and be due by 11:59pm Saturday of that same week. You can start the quiz at any time, but once started you will only have 30 minutes to complete the quiz, so plan accordingly.

WebAssign

WebAssign contains an equation editor which allows you to present your solutions in a mathematically correct form – beware parentheses. Once you submit a solution, it is graded immediately – for some problems you will have multiple attempts at the solution, for others only one attempt. Assignment grades will be transferred to eLearning.

To access WebAssign

1. Log into elearning, and select MATH 2414.701: INTEGRAL CALCULUS
2. Click the link on the eLearning course homepage entitled "Access WebAssign."
3. You may be asked to set up an accountat this point. This is for Cengage Unlimited registration, which is completely optional (details are provided in eLearning). In any case, set up this account.
4. At this point,
   A) if you already have a UTD WebAssign account with the text for this course, you should have access to WebAssign course MATH 2414 701: INTEGRAL CALCULUS.
   B) if you do not already have a UTD WebAssign account with the text for this course, you will have 3 options to register.
      a) "Purchase access online" if you do not already have an access code and you want to buy access to the ebook and homework problems without printed text.

b) "Enter an access code" if you have already purchased an access code.
c) "Continue my trial period" if you want to start using the system before purchasing. The deadline is given in red.

Once you have registered, you should now have access to the WebAssign course MATH 2414 701: INTEGRAL CALCULUS.Upon subsequent returns, you should only need to repeat steps 1-2.

Submitting GHW

These will be submitted online through elearning, and can be submitted any time prior to the due date.

1. Go to the MATH 2414.701 course homepage in elearning
2. Go to the "Submit Assignments" folder, then click on the current GHW.
3. You have two methods of submission: scanning your work, orwriting the solution in elearning.
   a) **Scan:** Attach one, or multiple, files as your submission. It is your responsibility to ensure the submission can be read.
      - Clearly distinguish work between problems; in other words, don't have your first problem going down the side of the second problem. There should be a clear space between the end of one problem and the start of the next.
      - Write in black pen to ensure the scan captures all of your writing.
      - If you've got a smartphone, use the Adobe Scan app. It's free, and can create single or multi-page PDFs.
      - You will have unlimited submission attempts, in case something goes wrong. Only the final submission is graded.
   b) **elearning:** Click the "Write Response" button. A text box will appear. Click f_x to enter mathematical text.
      - This is not the preferred method, so please try scanning if you can.
4. After your work is graded, you can click on it in "My Grades" to view any comments left by the grader.

So that your submission goes through, please avoid uploading your file(s) at the last minute.If you run into technical issues preventing a submission, then e-mail your assignment to your TA directly.

Academic Calendar

Please double-check these withdrawal dates on www.utdallas.edu:

8/17 - 9/1	Students may withdraw from a class without record.
9/2 - 9/28	Students may withdraw from a class with signatures and receive a W.
9/29- 10/26	Students may withdraw from a class with signatures of instructor and advisor receiving a WL.
10/27 –EOT	Students may withdraw from a class for non-academic reasons only.

Grading Policy

The course grade is determined from the following:

Weights:	15%	DHWs scaled to 100%
	15%	GHWs scaled to 100%
	15%	Quiz
	35%	Exam 1 and Exam 2, combined
	20%	Final Exam

Grade Scale	[96.5,100].....A+	[92.5,96.5).....A	[89.5,92.5).....A-
	[86.5,89.5).....B+	[82.5,86.5).....B	[79.5,82.5).....B-
	[76.5,79.5).....C+	[72.5,76.5).....C	[69.5,72.5),....C-
	[66.5,69.5).....D+	[62.5,66.5).....D	[59.5,62.5).....D-
	[0 ,59.5)......F		

- Digital Homework (DHW) will constitute 15% of your course grade.There will be around 14 DHWs,and the lowest 2 scores**(except the last DHW)** will be excluded when calculating your grade at the end of the semester.
- Graded Homework (GHW) will constitute 15% of your course grade.There will be around 14 GHWs, and the lowest 2 scores**(except the last GHW)** will be excluded when calculating your grade at the end of the semester.
- Quizzes will constitute 15% of your course grade. There wll be around 11 quizzes, and the lowest 2 scores**(except the last quiz)** will be excluded when calculating your grade at the end of the semester.

- Major exams constitute 35% of your course grade. The percentage of your grade each exam constitutes is based on your grade. Whichever exam you do better on will be 20%, while the other is worth 15%. We will provide more details about the format of these exams in the future.
- The final exam will be comprehensive and will constitute 20% of your course grade.

Schedule (subject to change)

Wk	Mon		Wed		Fri	
1	8/17	Introduction, Syllabus, Sec 12.1	8/19	Sec. 12.1/12.2	8/21	Sec. 12.2
2	8/24	Sec. 7.1 **DHW1/GHW1 due by 11:59pm**	8/26	Sec. 7.1/7.2	8/28	Sec. 7.2 **Quiz 1 (8/27 - 8/29)**
3	8/31	**Sec. 7.3** **DHW2/GHW2 due by 11:59pm**	9/2	Sec. 7.3/7.4	9/4	Sec: 7.4 **Quiz 2 (9/3 - 9/5)**
4	9/7	**Labor Day** **DHW3/GHW3 due by 11:59pm**	9/9	Sec. 7.5/7.8	9/11	Sec. 7.8 **Quiz 3 (9/10 - 9/12)**
5	9/14	Sec. 7.8/8.1 **DHW4/GHW4 due by 11:59pm**	9/16	Sec. 8.1	9/18	Sec. 8.2 **Quiz 4 (9/17 - 9/19)**
6	9/21	Sec. 9.1 **DHW5/GHW5 due by 11:59pm**	9/23	Sec. 9.2	9/25	**Sec. TBD** **Exam1**
7	9/28	Sec. 9.3/9.4 **DHW6/GHW6 due by 11:59pm**	9/30	Sec. 9.4/9.6	10/2	Sec. 9.6 **Quiz 5 (10/1 - 10/3)**
8	10/5	Sec. 10.1 **DHW7/GHW7 due by 11:59pm**	10/7	Sec.10.2	10/9	Sec. 10.2/10.3 **Quiz 6 (10/8 - 10/10)**
9	10/10	Sec. 10.3 **DHW8/GHW8 due by 11:59pm**	10/14	Sec. 10.3/10.4	10/16	Sec. 10.4 **Quiz 7 (10/15 - 10/17)**
10	10/19	Sec.10.4/11.1 **DHW9/GHW9 due by 11:59pm**	10/21	Sec. 11.1	10/23	Sec. 11.2 **Quiz 8 (10/22 - 10/24)**
11	10/26	Sec. 11.2/11.3 **DHW10/GHW10 due by 11:59pm**	10/28	Sec.11.3	10/30	**Sec. TBD** **Exam2 7:00-8:15p**
12	11/2	Sec. 11.4 **DHW11/GHW11 due by 11:59pm**	11/4	Sec. 11.4/11.5	11/6	Sec. 11.5/11.6 **Quiz 9 (11/5 - 11/7)**
13	11/9	Sec. 11.6 **DHW12/GHW12 due by 11:59pm**	11/11	Sec. 11.6/11.7	11/13	Sec. 11.7/11.8 **Quiz 10 (11/12 - 11/14)**
14	11/16	Sec. 11.8 **DHW13/GHW13 due by 11:59pm**	11/18	Sec. 11.9	11/20	Sec. 11.9 **Quiz 11 (11/19 - 11/21)**
15	11/23	Sec. 11.10 **DHW14/GHW14 due by 11:59pm**	11/25	Last day of class**,** **Sec. 11.10**	11/27	

Course & Instructor Policies

Due to the number of drops and large windows of time provided for DHW, GHW, and quizzes, there should be no need to request a makeup or late submission. However, if you feel that there is a legitimate reason to request such a thing, then you may e-mail your instructor. It is their discretion whether your situation warrants special consideration.

Note: Requesting a late submission because you waited until Monday night to complete your homework is not a legitimate excuse.

If you have a legitimate schedule conflict with one of the exams, then you should contact your instructor **prior to** the exam date.

Comet Creed

This creed was voted on by the UT Dallas student body in 2014. It is a standard that Comets choose to live by and encourage others to do the same:

"As a Comet, I pledge honesty, integrity, and service in all that I do."

Academic Support Resources

The information contained in the following link lists the University's academic support resources for all students.

Please seehttp://go.utdallas.edu/academic-support-resources.

UT Dallas Syllabus Policies and Procedures

The information contained in the following link constitutes the University's policies and procedures segment of the course syllabus.

Please go to http://go.utdallas.edu/syllabus-policies for these policies.

The descriptions and timelines contained in this syllabus are subject to change at the discretion of the Professor.