Course Syllabus

Fall 2016 Math 2414 Integral Calculus

84302	math2414.002.16f	MWF : 10:00am-10:50am	FO 2.702	Tran
84401	math2414.003.16f	MWF : 11:00am-11:50am	FO 1.502	Ohsawa
84565	math2414.004.16f	MWF : 12:00pm-12:50pm	FN 2.202	Ohsawa
84566	math2414.005.16f	MWF: 1:00pm-1:50pm	FO 1.502	Garrett
84567	math2414.006.16f	MWF: 2:00pm-2:50pm	FO 1.502	Ahsan
86645	math2414.007.16f	MWF: 3:00pm-3:50pm	FO 1.502	Ahsan
84662	math2414.008.16f	MWF: 4:00pm-4:50pm	FO 2.404	Garrett
84770	math2414.009.16f	MWF: 9:00am-9:50am	FO 1.502	Lewis
85261	math2414.010.16f	MWF : 10:00am-10:50am	FO 1.502	Lewis
86646	math2414.011.16f	MWF: 11:00am-11:50am	FO 2.404	Garrett

Instructor Information

Instructor: Dr. Bentley T. Garrett
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Instructor: Dr. Mohammad Ahsan
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Instructor: Dr. Anh Tran
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Instructor: Dr. Tomoki Ohsawa
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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**.

	Section/Number	Schedule	Location	TA names	Nid
84454	math2414.301.16f	Tues : 8:00am-9:50am	PHY 1.103	Lakmi	lnw140030
84455	math2414.302.16f	Thurs : 8:00am-9:50am	CB3 1.310	Abdullah	axh113230

84456	math2414.303.16f	Tues : 10:00am-11:50am	CB1 1.102	Jagath	jsg140330
84457	math2414.304.16f	Thurs : 10:00am-11:50am	CB1 1.102	Dongfang	dxz151230
84568	math2414.305.16f	Tues : 1:00pm-2:50pm	CB1 1.102	Jiaju	jxw151230
84569	math2414.306.16f	Thurs : 1:00pm-2:50pm	FN 2.202	Md Arafat	mxk157830
84570	math2414.307.16f	Tues : 3:00pm-4:50pm	CB1 1.102	Lakmi	lnw140030
84771	math2414.308.16f	Thurs : 3:00pm-4:50pm	CB1 1.102	Xiaoli	xxy160030
84772	math2414.309.16f	Tues : 8:00am-9:50am	FN 2.204	Pedro	pxp122930
84773	math2414.310.16f	Thurs : 8:00am-9:50am	FN 2.204	Amos	aie160030
84774	math2414.311.16f	Tues : 10:00am-11:50am	CB3 1.314	Dhara	ddk160130
84775	math2414.312.16f	Thurs : 10:00am-11:50am	CB3 1.314	Dhara	ddk160130
84776	math2414.313.16f	Tues : 1:00pm-2:50pm	FN 2.202	Pedro	pxp122930
84777	math2414.314.16f	Thurs : 1:00pm-2:50pm	CB1 1.102	Ali	axm164531
84778	math2414.315.16f	Tues : 3:00pm-4:50pm	CB3 1.314	Jagath	jsg140330
84779	math2414.316.16f	Thurs : 3:00pm-4:50pm	CB3 1.304	Dongfang	dxz151230
86649	math2414.319.16f	Tues : 10:00am-11:50am	CB3 1.310	Dipnil	dxc163930
86650	math2414.320.16f	Thurs : 10:00am-11:50am	CB3 1.310	Dipnil	dxc163930
85262	math2414.321.16f	Tues : 1:00pm-2:50pm	CB3 1.314	Ali	axm164531
85263	math2414.322.16f	Thurs : 1:00pm-2:50pm	CB3 1.310	Amos	aie160030
85264	math2414.323.16f	Tues : 3:00pm-4:50pm	CB3 1.310	Jiaju	jxw151230
85265	math2414.324.16f	Thurs : 3:00pm-4:50pm	CB3 1.314	Md Arafat	mxk157830
86652	math2414.326.16f	Thurs : 10:00am-11:50am	CB3 1.304	Yu	yxz141130

During problem section, the TA will:

- review class material and relevant material from prerequisite courses
- return and discuss quizzes and exams
- work problems or have students work problems
- entertain questions
- **administer quizzes**

Learning mathematics is a time consuming endeavor which provides rich rewards. Like learning a new language, the more time you spend with mathematics the better your comprehension. It is expected that a typical student will spend 3 hours studying outside of class for every hour inside class. Thus, in **MATH 2414**, one should expect to spend at least **9-12** hours studying each week. You will be assigned homework and practice problems that are consistent with this number of hours.

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, Materials and Additional Resources

- **Text:** Printed version: *Calculus, Early Transcendentals*,8th Edition, by James Stewart.
  Options:1) Access code to Enhanced WebAssign (contains digital copy of the text.)
  ISBN: 9781285858265
  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 - F16.** Here, you will find the syllabus, assignments, 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.
- **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.
- **Math Lab - Student Success Center:** located at MC 3.606 (phone: 972-883-6707), M-R: 10:00a – 8:00p, F and S: 10:00a – 4:00p, Su 12-4p. Provides free walk-in tutoring for students. You can also call to make an appointment.

Homework Assignments

There will be about 14 digital homework sets (DHWs) and about 5 handwritten homework sets (GHWs). **Each week, the DHWs will be assigned on WebAssign. These assignments will be posted each Monday afternoon and will be due by 11:59pm the following Sunday. (See schedule for due dates.) GHWs will be posted in pdf form on eLearning. You will be notified later in class and/or by email when these assignments will be posted and due. (The tentative GHW schedule is below.)**

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 – there will be NO late homework.

To gain access to WebAssign

1. Log into elearning, and select MATH 2414 701: INTEGRAL CALCULUS - F16
2. Click the link on the eLearning course homepage entitled "Access WebAssign."
3. If you already have a WebAssign account, you will either see the WebAssign course **Math 2414 Fall 2016, section 701** at the left or you will see a pull-down menu with courses listed; choose **Math 2414 Fall 2016, section 701**.
4. A) If you already have a WebAssign account with the text for this course, you should be taken to the WebAssign course **Math 2414 Fall 2016, section 701**.

   B) If you do not already have a 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 be taken to the WebAssign course **Math 2414 Fall 2016, section 701**. Upon subsequent returns, you should only need to repeat steps 1-3.

Academic Calendar

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

8/22-9/7	Students may withdraw from a class without record.
9/8-10/3	Students may withdraw from a class with signatures and receive a W.
10/4-10/27	Students may withdraw from a class with signatures of instructor and advisor receiving a WL.
10/28–EOT	Students may withdraw from a class for non-academic reasons only.

Grade Policy

The course grade is determined from the following:

Weights:	10%	DHWs scaled to 100%
	10%	GHWs scaled to 100%
	15%	Quizzes scaled to 100%
	40%	Exam 1 and Exam 2, combined
	25%	Final Exam

Grade Scale	[96.6,100]…A+	[93.3,96.6).….A	[90,93.3).….A-
	[86.6,90)…..B+	[83.3,86.6)…..B	[80,83.3).….B-
	[76.6,80).….C+	[73.3,76.6).….C	[70,73.3),….C-
	[66.6,70).….D+	[63.3,66.6).….D	[60,63.3).….D-
	[0 ,60)…...F		

- Homework will constitute 20% of your course grade. There will be around 14 digital homework sets (DHWs) and about 5 handwritten homework sets (GHWs). The lowest 2 scores of the DHWs **(except the last DHW**) will be dropped and the lowest single score of the GHWs **(except the last GHW)** will be dropped. The average of the remaining DHW scores will constitute 10% of the course grade, and the average of the remaining GHW scores constitute 10% of the course grade. **Again, the last DHW and the last GHW CANNOT be dropped.**

- Quizzes will constitute 15% of your course grade. There will be around 12 quizzes. The lowest 2 scores will be dropped **(except the last quiz)**, and the remaining scores will be scaled to 100%. Each quiz will be administered during the problem section and will be returned to you at the next meeting of your problem section. **Again, the last quiz CANNOT be dropped.**

- Major exams constitute 40% of your course grade. The lesser of the 2 major exam grades will constitute 15% of the course grade; the greater will constitute 25%. You will be notified in class of any change in time or venue prior to the date of the exam. Graded exams will be returned during problem section.
  Exam 1: Sept. 30, 2016, 7:00-8:15pm, Venue: TBA
  Exam 2: Nov. 4, 2016, 7:00-8:15pm, Venue: TBA

- Final exam - is not optional, is comprehensive, and constitutes 25% of your course grade. Final exams are not returned to the student but are held for review for one year.
  Final Exam: Dec 10, 2016, 11:00am-1:45pm. Venue: TBA

Schedule (subject to change)

Wk	Mon		Wed		Fri		Prob Sec
1	8/22	Introduction, Syllabus, Sec 12.1	8/24	Sec. 12.1/12.2	8/26	Sec. 12.2	
2	8/29	Sec. 7.1 **DHW1 due 11:59pm 8/28**	8/31	Sec. 7.1	9/2	Sec. 7.2	Qz 1
3	9/5	**Labor Day** **DHW2 due 11:59pm 9/4**	9/7	Sec. 7.2	9/9	Sec. 7.3	Qz 2
4	9/12	Sec: 7.3/7.4 **DHW3 due 11:59pm 9/11**	9/14	Sec. 7.4	9/16	Sec. 7.5 **GHW1 posted**	Qz 3
5	9/19	Sec. 7.8 **DHW4 due 11:59pm 9/18**	9/21	Sec. 7.8/8.1	9/23	Sec. 8.1	Qz 4
6	9/26	Sec. 8.2 **DHW5 due 11:59pm 9/25**	9/28	Sec. 9.1 **GHW2 posted**	9/30	**Sec. TBD** **Exam1 7:00-8:15p** Ve**nue TBA**	**GHW1 due**
7	10/3	Sec. 9.2/9.3 **DHW6 due 11:59pm 10/2**	10/5	Sec. 9.3/9.4	10/7	Sec. 9.4/10.1 **GHW3 posted**	Qz 5

8	10/10	Sec. 10.1 **DHW7 due 11:59pm 10/9**	10/12	Sec.10.2	10/14	Sec. 10.2/10.3	Qz 6 **GHW2 due**
9	10/17	Sec. 10.3 **DHW8 due 11:59pm 10/16**	10/19	Sec. 10.4	10/21	Sec.10.4	Qz 7
10	10/24	Sec. 11.1 **DHW9 due 11:59pm 10/23** **GHW4 posted**	10/26	Sec. 11.1/11.2	10/28	Sec. 11.2	Qz 8 **GHW3 due**
11	10/31	Sec.11.3 **DHW10 due 11:59pm 10/30**	11/2	Sec. 11.3/11.4	11/4	**Sec. TBD** **Exam2 7:00-8:15p** Venue **TBA**	
12	11/7	Sec. 11.4 **DHW11 due 11:59pm 11/6**	11/9	Sec. 11.5	11/11	Sec. 11.6 **GHW5 posted**	Qz 9
13	11/14	Sec. 11.6 **DHW12 due 11:59pm 11/13**	11/16	Sec. 11.7	11/18	Sec. 11.8	Qz10 **GHW4 due**
14	11/21	**FALL**	11/23	**BREAK**	11/25	**HOLIDAY**	
15	11/28	Sec. 11.8/11.9 **DHW13 due 11:59pm 11/27**	11/30	Sec. 11.9	12/2	Sec. 11.9/11.10	Qz11 **GHW5 due**
16	12/5	Sec. 11.10 **DHW14 due 11:59pm 12/4**	12/7	**Last Day of Class; Sec. TBD**			
Final Exam, 12/10, 11:00am-1:45pm,Venue **TBA**							

Course & Instructor Policies

Attendance: Daily attendance may be taken.

Citizenship: Any action that disturbs your classmates or interrupts the lecture is unacceptable. Examples of such actions are:

(a) Entering the classroom late - be as punctual as possible.
(b) Leaving the classroom before break or before the end of lecture.
(c) Cell phones, ringers, buzzers, beepers, alarms, blackberries - turn them off! unless you are a member of an emergency response team.

An apology is expected from anyone creating such a disturbance.
Student participation in class is desired, however, please raise your hand to speak and avoid having side conversations with your classmates.

There will be **no extra credit**

Exam/Quiz policies

(a) There will be no make-up quizzes.
(b) There will be no make-up homework assignments.
(c) There will be no make-up exams unless the circumstances are extraordinary.
(d) Exams and quizzes are closed book, without notes, and without graphing calculators.
(e) SHOW ALL WORK on quizzes and exams. Unsupported answers are considered miracles and, however inspirational, will receive little or no credit. Graded quizzes and major exams will be returned to you as soon as possible. Any document not picked up by the end of finals week will be destroyed.

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."

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.