

Course Syllabus

Fall 2015		Math 2414		Integral Calculus
84247	MATH 2414.001	TR 8:30-9:45am	FO 1.502	FOLEY
84248	MATH 2414.002	TR 10:00-11:15am	FO 1.202	LEWIS
84350	MATH 2414.003	TR 11:30-12:45pm	FO 1.502	GARRETT
84522	MATH 2414.004	TR 1:00-2:15pm	FO 2.208	LEWIS
84523	MATH 2414.005	TR 2:30-3:45pm	FO 1.202	GARRETT
84524	MATH 2414.006	TR 4:00-5:15pm	FO 1.202	FOLEY
84630	MATH 2414.008	TR 10:00-11:15am	FO 1.502	FOLEY
84745	MATH 2414.009	TR 11:30-12:45pm	FO 1.202	FOLEY
87264	MATH 2414.010	MW 4:00-5:15pm	GR 3.302	SAUTER

Instructor Information

Instructor: Dr. Bentley Garrett
Office: FA 2.406
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Instructor: Dr. Manjula Foley
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Instructor:
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Office hours: or by appointment
Contact preference: email

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**.

84408	MATH 2414.301	F 8:00-9:50am	SLC 2.203	Cong	cxc106920
84409	MATH 2414.302	F 8:00-9:50am	GR 4.208	Ananda	asd107020
84410	MATH 2414.303	F 10:00-11:50am	FN 2.106	Ananda	asd107020
84411	MATH 2414.304	F 10:00-11:50am	CB3 1.308	Behshid	bxx150730
84526	MATH 2414.305	F 1:00-2:50pm	SLC 2.302	Lasitha	lxx111030
84527	MATH 2414.306	F 1:00-2:50pm	CB3 1.308	Behshid	bxx150730
84528	MATH 2414.307	F 3:00-4:50pm	CB3 1.314	Lakmi	lnw140030
84746	MATH 2414.308	F 3:00-4:50pm	CB3 1.310	Zichen	zxw140330
84747	MATH 2414.309	F 8:00-9:50am	CB3 1.314	Xin	xxh130130
84748	MATH 2414.310	F 8:00-9:50am	CB3 1.310	Patrick	pxo140130
84749	MATH 2414.311	F 10:00-11:50am	CB3 1.314	Xin	xxh130130
84750	MATH 2414.312	F 10:00-11:50am	FN 2.204	Cong	cxc106920
84751	MATH 2414.313	F 1:00-2:50pm	CB3 1.314	Zichen	zxw140330
84752	MATH 2414.314	F 1:00-2:50pm	CB3 1.310	Samson	sbx140030
84753	MATH 2414.315	F 3:00-4:50pm	FN 2.204	Lasitha	lxx111030
84754	MATH 2414.316	F 3:00-4:50pm	CB3 1.304	Samson	sbx140030
87273	MATH 2414.321	F 10:00-11:50am	CB3 1.310	Patrick	pxo140130
87274	MATH 2414.322	F 10:00-11:50am	CB3 1.304	Marwah	mms140130
87275	MATH 2414.323	F 1:00-2:50pm	FN 2.204	Lakmi	lnw140030
87276	MATH 2414.324	F 1:00-2:50pm	CB3 1.304	Marwah	mms140130

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*, 7th Edition, by James Stewart.
Options: 1) Access code to Enhanced WebAssign (contains digital copy of the text.)
ISBN: [9780538738071](#)
2) Loose leaf copy of the text bundled with Enhanced WebAssign access code
ISBN: [9781285111605](#)
3) Hardbound text bundled with Enhanced WebAssign access code
ISBN: [9780495962243](#)
- **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 - F15**. 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. To send an email via eLearning, just click the Mail link/icon, click Compose Message, click Browse, and select the name.
- **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 Monday. (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 - F15
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 701: INTEGRAL CALCULUS – F15 at the left or you will see a pull-down menu with courses listed; choose MATH 2414 701: INTEGRAL CALCULUS - F15.
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 701: INTEGRAL CALCULUS - F15.
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 701: INTEGRAL CALCULUS - F15. Upon subsequent returns, you should only need to repeat steps 1-3.

Academic Calendar

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

8/24-9/9	Students may withdraw from a class without record.
9/10-10/5	Students may withdraw from a class with signatures and receive a W.
10/6-10/29	Students may withdraw from a class with signatures of instructor <u>and</u> advisor receiving a WL.
10/30–EOT	Students may withdraw from a class for non-academic reasons only.

Schedule (subject to change)

Wk	Mon	HW Due Dates	Tues	Lectures	Thur	Lectures	Fri
1	8/24		8/25	Introduction, Syllabus, Sec. 12.1	8/27	Sec 12.2	
2	8/31	DHW1 due 11:59p	9/1	Sec. 7.1	9/3	Sec .7.2	Qz 1
3	9/7	HOLIDAY	9/8	Sec. 7.2 DHW2 due 11:59p	9/10	Sec. 7.3	Qz 2
4	9/14	DHW3 due 11:59p	9/15	7.3/7.4	9/17	Sec. 7.4/7.5	Qz 3 GHW1 posted
5	9/21	DHW4 due 11:59p	9/22	Sec. 7.8	9/24	Sec. 8.1	Qz 4
6	9/28	DHW5 due 11:59p	9/29	Sec. 8.2/9.1	10/1	Sec. 9.1/9.2 Exam 1 7pm-8:15pm Venue: TBA	GHW1 due GHW2 posted
7	10/5	DHW6 due 11:59p	10/6	Sec. 9.3/9.4	10/8	Sec. 9.4/9.6	Qz 5 GHW2 due GHW3 posted
8	10/12	DHW7 due 11:59p	10/13	Sec. 10.1/10.2	10/15	10.2/10.3	Qz 6
9	10/19	DHW8 due 11:59p	10/20	Sec. 10.3/10.4	10/22	Sec 10.4	Qz 7
10	10/26	DHW9 due 11:59p	10/27	Sec. 11.1	10/29	Sec. 11.2	Qz 8 GHW3 due GHW4 posted
11	11/2	DHW10 due 11:59p	11/3	Sec. 11.3	11/5	Sec. TBD Exam 2 7pm-8:15pm Venue: TBA	
12	11/9	DHW11 due 11:59p	11/10	Sec. 11.4	11/12	11.5/11.6	Qz 9 GHW4 due GHW5 posted
13	11/16	DHW12 due 11:59p	11/17	Sec. 11.6	11/19	Sec. 11.7/11.8	Qz 10
14	11/23	Holiday	11/24	Holiday	11/26	Holiday	
15	11/30	DHW13 due 11:59p	12/1	Sec. 11.8/11.9	12/3	Sec. 11.9/11.10	Qz 11 GHW5 due
16	12/7	DHW14 due 11:59p	12/8	Last Lecture Sec. 11.10		Final Exam Sat, 12/12 , 11:00a-1:45p Venue: TBA	

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 GHWs 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: Oct. 1, 2015, 7:00-8:15pm, Venue: TBA
Exam 2: Nov. 5, 2015, 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 12, 2015, 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:

- Entering the classroom late - be as punctual as possible.
- Leaving the classroom before break or before the end of lecture.
- 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

- There will be no make-up quizzes.
- There will be no make-up homework assignments.
- There will be no make-up exams unless the circumstances are extraordinary.
- Exams and quizzes are closed book, without notes, and without graphing calculators.
- 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.

If you experience any problems with your UTD account you may send an email to: assist@utdallas.edu , or call the UTD Computer Helpdesk at 972-883-2911.

Intercollegiate Competitions

Students involved in a UTD sanctioned competitive activity must supply the instructor with a letter certifying his/her eligibility to participate in such a competition. Said letter may be obtained from the Intercollegiate Compliance Officer. It is the students' responsibility to discern scheduling conflicts and to inform the instructor well in advance of a class, quiz, or exam that will be missed due to a competition. The instructor will make reasonable accommodation to resolve the conflict.

Field Trip Policies

Off-campus Instruction and Course Activities

Off-campus, out-of-state, and foreign instruction and activities are subject to state law and University policies and procedures regarding travel and risk-related activities. Information regarding these rules and regulations may be found at the website address http://www.utdallas.edu/BusinessAffairs/Travel_Risk_Activities.htm. Additional information is available from the office of the school dean. Below is a description of any travel and/or risk-related activity associated with this course.

Student Conduct & Discipline

The University of Texas System and The University of Texas at Dallas have rules and regulations for the orderly and efficient conduct of their business. It is the responsibility of each student and each student organization to be knowledgeable about the rules and regulations which govern student conduct and activities. General information on student conduct and discipline is contained in the UTD printed publication, *A to Z Guide*, which is provided to all registered students each academic year.

The University of Texas at Dallas administers student discipline within the procedures of recognized and established due process. Procedures are defined and described in the *Rules and Regulations, Series 50000, Board of Regents, The University of Texas System*, and in Title V, Rules on Student Services and Activities of the university's *Handbook of Operating Procedures*. Copies of these rules and regulations are available to students in the Office of the Dean of Students, where staff members are available to assist students in interpreting the rules and regulations (SU 1.602, 972/883-6391) and online at <http://www.utdallas.edu/judicialaffairs/UTDJudicialAffairs-HOPV.html>

A student at the university neither loses the rights nor escapes the responsibilities of citizenship. He or she is expected to obey federal, state, and local laws as well as the Regents' Rules, university regulations, and administrative rules. Students are subject to discipline for violating the standards of conduct whether such conduct takes place on or off campus, or whether civil or criminal penalties are also imposed for such conduct.

Academic Integrity

The faculty expects from its students a high level of responsibility and academic honesty. Because the value of an academic degree depends upon the absolute integrity of the work done by the student for that degree, it is imperative that a student demonstrate a high standard of individual honor in his or her scholastic work.

Scholastic Dishonesty, any student who commits an act of scholastic dishonesty is subject to discipline. Scholastic dishonesty includes but is not limited to cheating, plagiarism, collusion, the submission for credit of any work or materials that are attributable in whole or in part to another person, taking an examination for another person, any act designed to give unfair advantage to a student or the attempt to commit such acts.

Plagiarism, especially from the web, from portions of papers for other classes, and from any other source is unacceptable and will be dealt with under the university's policy on plagiarism (see general catalog for details). This course will use the resources of turnitin.com, which searches the web for possible plagiarism and is over 90% effective.

Copyright Notice

The copyright law of the United States (Title 17, United States Code) governs the making of photocopies or other reproductions of copyrighted materials, including music and software. Copying, displaying, reproducing, or distributing copyrighted works may infringe the copyright owner's rights and such infringement is subject to appropriate disciplinary action as well as criminal penalties provided by federal law. Usage of such material is only appropriate when that usage constitutes "fair use" under the Copyright Act. As a UT Dallas student, you are required to follow the institution's copyright policy (Policy Memorandum 84-I.3-46). For more information about the fair use exemption, see <http://www.utsystem.edu/ogc/intellectualproperty/copypol2.htm>

Email Use

The University of Texas at Dallas recognizes the value and efficiency of communication between faculty/staff and students through electronic mail. At the same time, email raises some issues concerning security and the identity of each individual in an email exchange. The university encourages all official student email correspondence be sent only to a student's U.T. Dallas email address and that faculty and staff consider email from students official only if it originates from a UTD student account. This allows the university to maintain a high degree of confidence in the identity of all individual corresponding and the security of the transmitted information. UTD furnishes each student with a free email account that is to be used in all communication with university personnel. The Department of Information Resources at U.T. Dallas provides a method for students to have their U.T. Dallas mail forwarded to other accounts.

Withdrawal from Class

The administration of this institution has set deadlines for withdrawal of any college-level courses. These dates and times are published in that semester's course catalog. Administration procedures must be followed. It is the student's responsibility to handle withdrawal requirements from any class. In other words, I cannot drop or withdraw any student. You must do the proper paperwork to ensure that you will not receive a final grade of "F" in a course if you choose not to attend the class once you are enrolled.

Student Grievance Procedures

Procedures for student grievances are found in Title V, Rules on Student Services and Activities, of the university's *Handbook of Operating Procedures*.

In attempting to resolve any student grievance regarding grades, evaluations, or other fulfillments of academic responsibility, it is the obligation of the student first to make a serious effort to resolve the matter with the instructor, supervisor, administrator, or committee with whom the grievance originates (hereafter called "the respondent"). Individual faculty members retain primary responsibility for assigning grades and evaluations. If the matter cannot be resolved at that level, the grievance must be submitted in writing to the respondent with a copy of the respondent's School Dean. If the matter is not resolved by the written response provided by the respondent, the student may submit a written appeal to the School Dean. If the grievance is not resolved by the School Dean's decision, the student may make a written appeal to the Dean of Graduate or Undergraduate Education, and the dean will appoint and convene an Academic Appeals Panel. The decision of the Academic Appeals Panel is final. The results of the academic appeals process will be distributed to all involved parties.

Copies of these rules and regulations are available to students in the Office of the Dean of Students, where staff members are available to assist students in interpreting the rules and regulations.

Incomplete Grade Policy

As per university policy, incomplete grades will be granted only for work unavoidably missed at the semester's end and only if 70% of the course work has been completed. An incomplete grade must be resolved within eight (8) weeks from the first day of the subsequent long semester. If the required work to complete the course and to remove the incomplete grade is not submitted by the specified deadline, the incomplete grade is changed automatically to a grade of **F**.

Disability Services

The goal of Disability Services is to provide students with disabilities educational opportunities equal to those of their non-disabled peers. Disability Services is located in room 1.610 in the Student Union. Office hours are Monday and Thursday, 8:30 a.m. to 6:30 p.m.; Tuesday and Wednesday, 8:30 a.m. to 7:30 p.m.; and Friday, 8:30 a.m. to 5:30 p.m.

The contact information for the Office of Disability Services is:
The University of Texas at Dallas, SU 22
PO Box 830688
Richardson, Texas 75083-0688
(972) 883-2098 (voice or TTY)
disabilityservice@utdallas.edu

If you anticipate issues related to the format or requirements of this course, please meet with the Coordinator of Disability Services. The Coordinator is available to discuss ways to ensure your full participation in the course. If you determine that formal, disability-related accommodations are necessary, it is very important that you be registered with Disability Services to notify them of your eligibility for reasonable accommodations. Disability Services can then plan how best to coordinate your accommodations.

It is the student's responsibility to notify his or her professors of the need for such an accommodation. Disability Services provides students with letters to present to faculty members to verify that the student has a disability and needs accommodations. Individuals requiring special accommodation should contact the professor after class or during office hours.

Religious Holy Days

The University of Texas at Dallas will excuse a student from class or other required activities for the travel to and observance of a religious holy day for a religion whose places of worship are exempt from property tax under Section 11.20, Tax Code, Texas Code Annotated.

The student is encouraged to notify the instructor or activity sponsor as soon as possible regarding the absence, preferably in advance of the assignment. The student, so excused, will be allowed to take the exam or complete the assignment within a reasonable time after the absence: a period equal to the length of the absence, up to a maximum of one week. A student who notifies the instructor and completes any missed exam or assignment may not be penalized for the absence. A student who fails to complete the exam or assignment within the prescribed period may receive a failing grade for that exam or assignment.

If a student or an instructor disagrees about the nature of the absence [i.e., for the purpose of observing a religious holy day] or if there is similar disagreement about whether the student has been given a reasonable time to complete any missed assignments or examinations, either the student or the instructor may request a ruling from the chief executive officer of the institution, or his or her designee. The chief executive officer or designee must take into account the legislative intent of TEC 51.911(b), and the student and instructor will abide by the decision of the chief executive officer or designee.

These descriptions and timelines are subject to change at the discretion of the Professor.