Math 5319-001 Texas Tech University
Intermediate Analysis II Spring 2012

COURSE SYLLABUS

Professor:	Dr. Raegan Higgins
Office:	MA 214
Email:	raegan.higgins@ttu.edu
Phone:	742-2580 ext 273
Office Hours:	MW 2:00 – 3:30pm, R 1:30 – 2:30pm, or by appt

Classroom Lecture: MWF 1:00 – 1:50pm Math 108

Text: *Methods of Real Analysis*, 2^{nd} edition by Richard Goldberg, (purchase a copy from The Copy Outlet, 2402 Broadway Ave).

Material to be Covered: The information below serves a *tentative* outline for the material to be covered.

Chapter 6	Connectedness, Completeness, and Compactness
Chapter 7	Calculus
Chapter 8	The Elementary Functions; Taylor Series
Chapter 9	Sequences and Series of Functions
Chapter 10	Three Famous Theorems
Chapter 11	The Lebesgue Integral

Expected Student Learning Outcomes: Upon completion of this two-semester series, students should master concepts and theories of single and multivariable calculus, including, but not limited to: sets, real number system, formal definition of limits of sequences, Cauchy sequences, epsilon-delta definition of limits of functions, continuous functions, differentiation, mean value theorems, Taylor's theorem, Riemann integrals, fundamental theorems of calculus, infinite series, sequences and series of functions, introduction to the topology of the line, introduction to Lebesgue measure and integration.

Homework and Reading: This course will emphasize both the writing of mathematics as well as doing mathematics. You should read whatever sections of the text you believe will help you learn the material being covered in class. The written work you prepare should be grammatically and logically correct.

Approximately 7 homework sets will be assigned during the semester. The exercises are an essential part of learning the material, so make every effort to work all of them. It is important that you attempt the assignment before seeking help. It is acceptable to work with and to exchange ideas with others after you have spent sufficient time thinking about the problems by yourself. Homework is due in class on the specified Friday and will be announced in lecture one week prior to collection. The first assignment is due February 3^{rd}. Each submitted exercise should be:

- written in pencil,
- written on loose-leaf paper or copy paper,
- labelled with section number and exercise number (6.2.14 denotes Exercise 14 of Section 6.2), and
- easy to follow.

All exercises must be written on one side of the page, stapled in the upper left-hand corner, and contain the heading below. Each exercise must be contained to one side of the page; solutions should not carry over to another page. Assignments that do not meet all the above criteria will not be graded. The opportunity to resubmit for grading will be determined by the professor.

First Name Last Name
Math 5319-001
(to be assigned)

Homework Assignment #

Quizzes: There will be a quiz each Friday, except during the first week of class and during exam weeks—thus the total number of quizzes is 11. The first quiz will be January 27^{th}. The quizzes will either consist of a recent (within the last 5 lectures) homework problem, definition, or statement of a theorem. There will be no makeup quizzes. However, in computing your quiz total, only your 9 best scores will be used.

Exams: There will be two midterm exams and a final exam. The dates for the midterms will be announced in advance (tentatively March 1^{st} and April 13^{th}) and we will try having them from 12pm-3pm with each student having two hours. The comprehensive final exam will be given on Monday, May 14^{th} in Math 108 at7:30am.

Assessment of Learning Outcomes: The assessment of students' mastery of the skills and concepts as specified in the expected learning outcomes will occur as follows:

Homework	assigned in sets	15%
Quizzes	best 9 of 11	20%
Midterm Exam	2 two-hour exams	40%
Final Exam	Comprehensive, Monday, May 14^{th} 7:30 – 10:00am	25%
Total		100%

Grading Scale

A+ 100%–95%	A 94.9%–91%	A- 90.9%–88%	
B+ 87.9%–85%	B 84.9%–81%	B- 80.9%–78%	
C+ 77.9%–75%	C 74.9%–71%	C- 70.9%–68%	
D+ 67.9%–65%	D 64.9%–59%	D- 58.9%–55%	F 54.9%–0%

Make-Up Policy: There are no make-up exams except for absence due to religious observance or absence to due officially approved trips (see Class Attendance below). The student should make arrangements to take the exam **prior** to his/her absence.

Class Attendance: Students are cautioned that active participation in all class activities is necessary for success. Absences and tardiness must be avoided.

- Absence due to religious observance - *The Texas Tech University Catalog* states that a student who is absent from classes for the observance of a religious holy day will be allowed to take an examination or complete an assignment scheduled for that day within a reasonable time after the absence (p.49). Notification must be made in writing and delivered in person no later than the 15th class day of the semester.

- Absence due to officially approved trips - *The Texas Tech University Catalog* states that the person responsible for a student missing class due to a trip should notify the instructor of the departure and return schedule in advance of the trip. The student may not be penalized and is responsible for the material missed.

- Whether an absence is excused or unexcused is determined solely by the professor with the exception of absences due to religious observance and officially approved trips described above. The Center of Campus Life will notify faculty, at the student's request, when a student is absent for four consecutive days with appropriate verification of a health related emergency. This notification **does not** excuse the student from class; it is provided as a courtesy. More information about this service can be found on the Center of Campus Life website http://www.campuslife.ttu.edu/crisis/.

Communication: You are invited and indeed strongly encouraged to make use of my office hours and/or to schedule appointments. If at anytime during the course you need help or special consideration regarding any subject, please do not hesitate to speak with me.

In the event that you need to contact me via email, please include **"Math 5319-001:"** and the title of the email (e.g., homework question, attendance) in the subject line. For example, the subject line may read "Math 5319-001: Homework Set 1." I will respond to email within 24 hours during the work week (excluding holidays).

Academic Integrity (extracted from OP 34.12): It is the aim of the faculty of Texas Tech University to foster a spirit of complete honesty and high standard of integrity. The attempt of students to present as their own any work not honestly performed is regarded by the faculty and administration as a most serious offense and renders the offenders liable to serious consequences, possibly suspension.

Scholastic dishonesty includes, but it not limited to, cheating, plagiarism, collusion, falsifying academic records, misrepresenting facts, and any act designed to give unfair academic advantage to the student (such as, but not limited to, submission of essentially the same written assignment for two courses without the prior permission of the instructor) or the attempt to commit such an act.

Accommodation for Students with Disabilities (extracted from OP 34.22): Any student who, because of a disability, may require some special arrangements in order to meet course requirements should contact the professor (in MA 214) as soon as possible to make the necessary arrangements. Students should present appropriate verification from Student Disability Services during the professor's office hours. Please note instructors are not allowed to provide classroom accommodations to a student until the appropriate verification from Student Disability Services has been provided. For additional information, you may contact the Student Disability Services office in person at 335 West Hall, via phone at 806-742-2405, or via email at sds@ttu.edu.