

## MATH 3335, Analysis I, Section 001, FALL 2012

**Instructor:** Dr. Gornet

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**Office Hours:** MWF 9-10,11-12; TuTh 11:30-12:30 or by e-appointment (subject to change)

**Instructor Website:** <http://www.uta.edu/faculty/rgornet/>

**Section Information:** MATH 3335, Analysis I, Section 001

**Time and Place of Class Meetings:** MWF, 10a–10:50a, Room PKH102

**Course Content and Prerequisite:** Real numbers, sequences, series, limits of functions, continuity. Prerequisite: Grade of C or better in both Calculus III (concurrent with permission) and Introduction to Proofs.

**Student Learning Outcomes:** Upon completion of MATH 3335, the student should be able to think critically about statements in analysis involving the real number system, sequences, limits, and continuity, to determine whether such statements are true or false, and to prove their conclusions through correct and rigorous mathematical arguments.

**Required Textbook:** *Introduction to Real Analysis*, 4th Edition, by R.G. Bartle and D.R. Sherbert, ISBN 978-0471433316 (older editions at your own risk)

**Electronic Communication:** UT Arlington has adopted MavMail as its official means to communicate with students about important deadlines and events, as well as to transact university-related business regarding financial aid, tuition, grades, graduation, etc. All students are assigned a MavMail account and are responsible for checking the inbox regularly. There is no additional charge to students for using this account, which remains active even after graduation. Information about activating and using MavMail is available at <http://www.uta.edu/oit/cs/email/mavmail.php>.

**Grading:** The Grading Scale is 90-100 A ; 80-89 B ; 70-79 C ; 60-69 D ; 0-59 F.

Best 2 of 3 Exams: 50%

Final Exam: 30%

Four Group Homeworks: 10% (cumulative semester average)

Attendance: 5%

Solo Homework/Quizzes: 5%

**Course Schedule:** We will cover the following sections from the text.

Foundational Material, Sections 1.1 and 1.3

The Real Number System, Sections 2.1, 2.2, 2.3, 2.4, and 2.5

Sequences and Series, Sections 3.1, 3.2, 3.3, 3.4, 3.5, 3.6

Limits, Sections 4.1, 4.2, 4.3

Continuity, Sections 5.1, 5.2, 5.3, 5.4

“As instructor for this course, I reserve the right to adjust this schedule in any way that serves the educational needs of the students enrolled in this course. -Ruth Gornet”

**Important Dates (2012):**

Monday, Sep 10, Census Date

Monday, Sep 10, Deadline for makeup exam requests for final exam

Monday, Sep 10, Deadline for all Disability Accommodation Requests

Wednesday, Sep 19, **TEST ONE**

Wednesday, Oct 17, **TEST TWO**

Wednesday, Oct 31, 5pm Official last day to drop courses

Wednesday, Nov 14, **TEST THREE**

Thursday, Nov 23, THANKSGIVING HOLIDAY

Wednesday, Dec 5, Last day of classes

Monday, Dec 10, 8am-10:30am, FINAL EXAM

**Description of major assignments and expectations:** Except on testing days, classes will involve interactive work with classmates on True/False questions and Discovery Exercises in which we will develop the major concepts, check conceptual and practical understanding, and present ideas and solutions to the class. Homework will be given each week. Selected problems from the homework will be handed in as group work, to be written up and returned according to the guidelines below. Some solo homework and/or give in-class (pop) quizzes (no more than one problem per week) will be graded for the purpose of giving you personal feedback for test readiness. The remaining homework problems will not be collected. These should be worked out with your group or on your own to help you learn the material and prepare for the exams. Office hours are scheduled for you to obtain help on these problems. Discuss your work often with your peers and keep a neatly-written folder of your solutions to all the homework problems so that you will be well-prepared for the exams. Group homework is accepted only at the beginning or before the class at which it is due. Three tests and a final exam will be given to determine how you have mastered the material in the assigned homework (including group homework and homework that is not collected). A missed exam cannot be made up. One lowest test score will be dropped.

**Attendance Policy: Attendance is required.** Attendance will be taken at the beginning of class. If you are late, you will receive partial attendance credit. Lack of readiness or participation will result in partial attendance credit. Attendance is 5% of your final grade. At each class period you will receive a score of 0, 1, or 2. If you arrive on-time, stay the entire class period, participate in class, and are prepared for class discussion, you will receive an attendance score of 2 for that day. If you arrive late, leave early, or are unable to participate in class discussion, you will receive a score of 1 for that day. If you miss class for any reason, you will receive a score of 0.

**Expectations for Out-of-Class Study:** Between lectures, you are expected to review your notes, go through the appropriate section(s) in the book, understand all relevant examples in the book, meet with your group, and attempt all homework problems assigned for the section. Beyond the time required to attend each class meeting, students enrolled in this course who intend to earn a grade of 'C' or higher should expect to spend at least an additional 12 focused hours each week of their own time in course related activities, including reading required materials, completing assignments, and preparing for exams.

**Instructions for Group Homework:**

- (1) Hand in one set of instructions, prepared by the entire group.
- (2) All members of the group must work with the group on all the problems.
- (3) Written solutions must be read and agreed upon by each and every group member.
- (4) Groups are expected to hold at least three meetings, one hour or more in length, for each group assignment. More is likely necessary.
- (5) The cover page will consist of the clearly written name of each group member, each member must sign below her or his name. The signature indicates that the group members has worked on each problem and agrees with the final solution.
- (6) Every time you meet you will sign a form verifying that you attended and participated. I will have these forms available for download from the class website. One page for each meeting.
- (7) Write out the complete problem before presenting the solution.
- (8) Work must be neat and clearly legible.
- (9) Include all steps and justifications that cannot be seen easily without writing them down. The ARGUMENTS are more important than the final answer.
- (10) Write on ONE SIDE OF THE PAPER ONLY.
- (11) Trim edges from paper torn from a spiral notebook.
- (12) Staple all pages in the upper left corner. NO PAPER CLIPS.

**Exam and Quiz Make-up Policy:** If you have a conflict with the Final Exam, you must contact me **in writing** no later than the Census Date September 10 (Mon) for the final exam and submitting it together with necessary documentation. If a conflict arises after the census date, contact me immediately. Do not assume that your e-mail has been received if there is no response. **Delays in submitting a make-up request may mean that your request cannot be approved.**

**Exam and Quiz Calculator Policy:** You will not need a calculator, ever, in this course.

**Exam Picture ID Policy:** You will be asked to present a UTA picture ID at all exams. Bring your UTA picture ID to all exams.

**Drop Policy:** Students may drop or swap (adding and dropping a class concurrently) classes through self-service in MyMav from the beginning of the registration period through the late registration period. After the late registration period, students must see their academic advisor to drop a class or withdraw. Undeclared students must see an advisor in the University Advising. Drops can continue through a point two-thirds of the way through the term or session. The last day this semester to drop a course is **Wednesday, October 31 at 5pm**. Any student who drops the course on or before this date will receive a W. It is the student's responsibility to officially withdraw if they do not plan to attend after registering. **Students will not automatically be dropped for non-attendance.** Repayment of certain types of financial aid administered through the University may be required as the result of dropping classes or withdrawing. For more information, contact the Office of Financial Aid and Scholarships (<http://www.uta.edu/ses/fao>).

**Americans with Disabilities Act:** The University of Texas at Arlington is on record as being committed to both the spirit and letter of all federal equal opportunity legislation, including the Americans with Disabilities Act (ADA). All instructors at UT Arlington are required by law to provide "reasonable accommodations" to students with disabilities, so as not to discriminate on the basis of that disability. Any student requiring an accommodation for this course must provide the instructor **in a timely manner** with official documentation in the form of a letter certified by the staff in the Office for Students with Disabilities, University Hall 102. This **must be done by the Census Date, September 10**. Only those students who have officially documented a need for an accommodation will have their request honored. Information regarding diagnostic criteria and policies for obtaining disability-based academic accommodations can be found at [www.uta.edu/disability](http://www.uta.edu/disability) or by calling the Office for Students with Disabilities at (817)272-3364.

**Academic Integrity:** All students enrolled in this course are expected to adhere to the UT Arlington Honor Code: *I pledge, on my honor, to uphold UT Arlington's tradition of academic integrity, a tradition that values hard work and honest effort in the pursuit of academic excellence. I promise that I will submit only work that I personally create or contribute to group collaborations, and I will appropriately reference any work from other sources. I will follow the highest standards of integrity and uphold the spirit of the Honor Code.*

**Student Support Services:** UT Arlington provides a variety of resources and programs designed to help students develop academic skills, deal with personal situations, and better understand concepts and information related to their courses. Resources include tutoring, major-based learning centers, developmental education, advising and mentoring, personal counseling, and federally funded programs. For individualized referrals, students may visit the reception desk at University College (Ransom Hall), call the Maverick Resource Hotline at 817-272-6107, send a message to [resources@uta.edu](mailto:resources@uta.edu), or view the information at [www.uta.edu/resources](http://www.uta.edu/resources).

**Student Disruption** The University reserves the right to impose disciplinary action for an infraction of University policies. For example, engagement in conduct, alone or with others, intended to obstruct, disrupt, or interfere with, or which in fact obstructs, disrupts, or interferes with, any function or activity sponsored, authorized by or participated in by the University.

**Cell Phone/Laptop Use:** Cell phones are not allowed during class time; the only exception is those who are the primary contact for a child in daycare/school. If this is the case, notify Dr. Gornet by email by the census date. If you need to check your messages, you must do so on your own time, not class time. Using a laptop during class is a privilege, not a right. This privilege will be revoked for any students using the laptop for purposes other than Calculus 3.

**Grade Exclusion and Grade Replacement Policies:** These policies are described in detail in the University catalog and can also be found online. Further questions should be directed to your academic advisor and not the instructor of this course.

**Drop for Non-Payment of Tuition:** If you are dropped from this class for non-payment of tuition, you may secure an Enrollment Loan through the Bursar's Office.

**Student Feedback Survey:** At the end of each term, students enrolled in classes categorized as lecture, seminar, or laboratory shall be directed to complete a Student Feedback Survey (SFS). Instructions on how to access the SFS for this course will be sent directly to each student through MavMail approximately 10 days before the end of the term. Each student's feedback enters the SFS database anonymously and is aggregated with that of other students enrolled in the course. UT Arlington's effort to solicit, gather, tabulate, and publish student feedback is required by state law; students are strongly urged to participate. For more information, visit <http://www.uta.edu/sfs>

**Final Review Week:** A period of five class days prior to the first day of final examinations in the long sessions shall be designated as Final Review Week. The purpose of this week is to allow students sufficient time to prepare for final examinations. During this week, there shall be no scheduled activities such as required field trips or performances; and no instructor shall assign any themes, research problems, or exercises of similar scope that have a completion date during or following this week *unless specified in the class syllabus*. During Final Review Week, an instructor shall not give any examinations constituting 10% or more of the final grade, except makeup tests and laboratory examinations. In addition, no instructor shall give any portion of the final examination during Final Review Week. During this week, classes are held as scheduled. In addition, instructors are NOT required to limit content to topics that have been previously covered; they may introduce new concepts as appropriate.