

**Math 602: Topics in Analysis**  
Syllabus, Spring 2010

Sched #: 21914

Instructor: Dr. A. Izsák

Office: GMCS 573

Class: TTh 4:00–5:15 EBA-254

Office Hours: TTh 3:00-4:00 PM or by appt.

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**Goals**

This graduate course develops conceptual understandings of ideas central to analysis, with particular attention to convergence, continuity, and differentiation. It makes connections to the teaching and learning of calculus through specific topics and examples, the pedagogical approach, and readings. The pedagogical approach emphasizes solving problems using multiple representations and with the aid of computers. The course requires engaging in mathematical discussions with peers, justifying one's mathematical thinking, and examining the mathematical thinking of others.

**Learning Outcomes**

Students will learn to:

- Understand the historical motivations for developing analysis
- Analyze alternative definitions of ideas central to analysis
- Use multiple-representations to solve problems, sometimes with and sometimes without computers
- Construct proofs
- Connect ideas that may have been studied separately in different courses

**Required Course Text**

Bressoud, D. (2007). *A Radical Approach to Real Analysis (2nd. Ed)*. Washington, DC: Mathematical Association of America.

Chapters 1–4 (Hopefully 5), other chapters as time permits. Additional course material will be made available as the semester progresses.

**Attendance and Participation Policy**

Regular attendance is required. Each student is permitted to miss one class without penalty. For each additional absence your final class grade will be deducted 1/2 of one letter grade for every absence. The only exception is documented emergencies, in which case you are required to contact me. Students are responsible for all missed materials handed out in class. You are expected to participate in all discussions in the manner of a seminar. Up to one letter grade will be deducted for poor participation. We will begin promptly at 4 PM.

**Homework**

Homework is vital and will be collected on a regular basis. You should prepare your assignments in an organized and readable form. Late homework is not accepted.

## Evaluation

Midterm	30%	Tu., Mar. 16
Homework	30%	
Final exam	30%	Tu., May 18, 3:30–5:30 PM

Missed exams can only be made up with a University approved absence.

## To be assured the following grades, you need to earn

92% - 100% = A	83%-87% = B	73% - 77% = C	63%-67% = D
90%-91% = A-	80%-82% = B-	70%-72% = C-	60%-62%=D-
88%-89% = B+	78%-79% = C+	68%-69%=D+	59% and below = F

## CSU Furloughs

This year the CSU has suffered a \$584 million cut, or 20% of our budget. In an effort to deal with this massive cut, the CSU administration has increased student fees (32%), reduced the number of classes offered, and furloughed faculty and staff for nine (9) days each semester. A furlough is mandatory un-paid time off. To comply with the furlough, I am canceling four classes this semester on the days noted below. In addition, I will not be available for office hours, phone consultations, or emails on these same days. It is important to recognize that these days are not holidays. Instead, this means that I will have fewer days to help you learn all the material and that you will have to do more on your own. For example, I may modify some assignments to reduce their impact on class time or the need for my input. In sum, I will not be able to offer the quality of education that you deserve.

## Important Dates

February 2:	Drop deadline
March 2:	Furlough day
March 16:	Midterm
March 25:	Furlough day
April 20:	Furlough day
April 29:	Furlough day
May 12:	Last day of classes
May 18:	Final

## Academic Integrity

Many students find that studying with others is helpful. I encourage that since it gives you extra practice at explaining your thinking. Presenting the work of others as one's own, however, is called **plagiarism**. Plagiarism is unacceptable in an environment devoted to learning. The penalty for plagiarism ranges from failing the assignment that was plagiarized, to lowering the course grade, to failing the course, to expulsion from the university. Therefore, you should not copy someone else's work or make minor alterations and hand it in as your own—this is plagiarism.