

MA 34100, Foundations of Analysis, 20837–068 policies/syllabus:

3 credit hours.

Prerequisites: MA 17200 or 17400 or 18200 or 26100 or 26300 or 26300 or 27100 or 27101, minimum grade C⁻.

Instructor: Prof. László Lempert, lempert@purdue.edu

Office: MATH 728, phone: 494-1952

Office hours: Tuesday 1–2 pm, Thursday 2–3 pm.

Lectures: MWF 12:30 pm, SCHM 313 (formerly known as REC 313).

Preferred mode of contact: After or before lecture, office hour, email to above.

Textbook: Introduction to real analysis by Bartle and Sherbert, any edition. I plan to lecture so that you understand it in class, or later by studying your notes, but occasionally I will assign a page or two reading from the book.

The emphasis of the class will be on precise mathematical notions, theorems, and reasoning, that will provide us with firm ground in our dealings with analytical problems. The expectation is that students will understand and learn these notions and theorems, learn to distinguish between correct and flawed reasoning, and will themselves be able to construct rigorous proofs of smaller theorems (in the guise of homework and exam problems).

Grade policy: Course grade will be computed from homework scores, one midterm score, and one final exam score (40%, 20%, and 40%). If you achieve at least 80 %, A is guaranteed; 65 %, B is guaranteed, 50 %, C is guaranteed.

Homework will be assigned every class meeting, during lecture, and will be collected once a week. Homework assigned on Wednesday and Friday of a week, and on Monday the next week, should be turned in on Gradescope by 9 pm the following Tuesday. (For example, homework I assign 1/9 will be due on 1/10; the next batch of assignments, from 1/11, 1/13, and 1/16 will be due 1/17.) The midterm will be 8–9 pm March 6, in LWSN B151. Final exam: 8 am–10 am Friday, May 5 in SCHM 313 (same location as the classes).

As a rule, late homework will not be accepted. If you have problems turning in a set in time, talk to me as soon as the issue is arising.

Attendance at lectures: not mandatory, but recommended.

If medical issues prevent you from working in this class, let me know as soon as practical, we will find a way around the academic aspects of problem.

Homework is meant to be individual, not team-homework. This does not mean it is illegal to discuss the problems with your fellow students, but it does mean that first you yourself should attempt to solve all problems without outside help. You may not be able to solve all the problems all the time, and when stuck, discussing the problems with fellow students, or with your instructor, will probably help—such discussions can be useful even if you have already found a way to solve the problem. But discussions should come only after

you have already spent time thinking about how to solve it. Along a related line, chances are that any problem assigned can be found in some book or online, with solutions. Finding those solutions is not trivial, and searching skills are of course valuable and even necessary in mathematical research and applications. However, the intent of homework is not to help you develop those searching skills. Rather, to get you think about problems and the notions learned in class. If your homework solution, or a significant part of it, was found online or in a book, or is fruit of discussion with others, state it clearly, for partial credit.

Grader: Gavin Glenn, glennng@purdue.edu . If, after homework is returned to you, you have questions concerning the grading, partial credit, grader's comments, etc., please contact your grader by email. If you have questions about homework *before* it is turned in ('how to solve it?'), come to my office hours (currently set to Tuesday 2–3 pm, Thursday 1–2 pm, see above). Warning: Normally, if you ask me 'how to solve it', I will not solve it for you, but will help you find the solution.

ADA policies: As you know, Purdue University strives to make learning accessible to all participants. If you anticipate or experience physical or academic barriers based on disability, please contact the Disability Resource Center at: drcpurdue.edu or by phone: 765-494-1247.

In MA 34100 accommodations are managed between the instructor, the student and DRC Testing Center. If you have been certified by the Disability Resource Center (DRC) as eligible for accommodations, please contact me (L.L.) to discuss your accommodations as soon as possible. Here are instructions for sending your Course Accessibility Letter to your instructor: <https://www.purdue.edu/drc/students/course-accessibility-letter.php>

This last section to follow you probably have encountered in one version or another in other course pages as well. The precise wording may change as we get closer to the spring semester. You can also consult University Policies and Statements in the menu bar (probably on the left).

A hyperlink to Purdue's full Nondiscrimination Policy Statement is included in our course Brightspace under University Policies.

If you find yourself beginning to feel some stress, anxiety and/or feeling slightly overwhelmed, try WellTrack. Sign in and find information and tools at your fingertips, available to you at any time. If you need support and information about options and resources, please contact or see the Office of the Dean of Students. Call 765-494-1747. Hours of operation are M-F, 8 am- 5 pm. If you find yourself struggling to find a healthy balance between academics, social life, stress, etc., sign up for free one-on-one virtual or in-person sessions with a Purdue Wellness Coach at RecWell. Student coaches can help you navigate through barriers and challenges toward your goals throughout the semester. Sign up is completely free and can be done on BoilerConnect. If you have any questions, please contact Purdue Wellness at evans240@purdue.edu. If you are struggling and need mental health services: Purdue University is committed to advancing the mental health and well-being of its students. If you or someone you know is feeling overwhelmed, depressed, and/or in need of mental health support, services are available. For help, such individuals should contact Counseling and

Psychological Services (CAPS) at 765-494-6995 during and after hours, on weekends and holidays, or by going to the CAPS office on the second floor of the Purdue University Student Health Center (PUSH) during business hours. CAPS also offers resources specific to COVID-19 on its website. Topics range from Adjusting to the New Normal to How to Talk with Professors about Personal Matters.

Any student who faces challenges securing their food or housing and believes this may affect their performance in the course is urged to contact the Dean of Students for support. There is no appointment needed and Student Support Services is available to serve students 8 a.m.-5 p.m. Monday through Friday. Considering the significant disruptions caused by the current global crisis as it relates to COVID-19, students may submit requests for emergency assistance from the Critical Need Fund

Emergency Preparation: In the event of a major campus emergency, course requirements, deadlines and grading percentages are subject to changes that may be necessitated by a revised semester calendar or other circumstances beyond the instructor's control. Relevant changes to this course will be posted onto the course website or can be obtained by contacting your instructor via email or phone. You are expected to read your purdue.edu email on a frequent basis.