

MATH 171, Real Analysis 1: Fall 2025

A quick reference guide

Instructor: Johanna Franklin

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Office: Roosevelt 315A

Office hours: Tuesdays 2:00–3:30 p.m. and Wednesdays 3:30–5:00 p.m.

Office phone: (516) 463-5739

Websites: Canvas, FAQ, and Slack workspace (click on names to open sites)

Semi-official course description: This is the first semester of a year-long sequence introducing the basic concepts of the theory of real variables. The topics covered include an axiomatic development of the real number system, the basic topology of the reals, sequences and series of real numbers and functions, limits and continuity, differentiation, and integration. Additional topics will be covered as time permits.

Text: *Understanding Analysis*, 2nd edition, by Abbott

Classroom and time: Roosevelt 206, TR 8:00–9:25 a.m.

Grading scheme: Your grade in this class will be based on your demonstration of your understanding of real analysis, not on a point system! Here's how you can do this:

Homework: Homework will be assigned weekly and will be due on Thursdays. If you can't turn it in in class, you can bring it to my office on its due date by the time I leave for the day. (I can promise that I'll be in my office until 1:00 p.m. on Thursdays and very likely later.)

Learning Targets: There are 30 Learning Targets in this course: 6 for the proof techniques and 24 for the concepts you'll encounter. Once you correctly solve a problem on a quiz for a Learning Target, it will be marked Satisfactory. You'll have multiple chances to demonstrate your understanding of each topic on regular quizzes and individual reassessments, and there's no penalty for needing multiple chances. The quizzes will be on **September 25, October 21, November 11, and December 2**, and there will be an optional final exam that is tentatively scheduled for **TBA**. I'll only reschedule the final if you have a documented emergency or you make alternate arrangements with me by Tuesday, November 25. Note that I will only make these arrangements in the event of extenuating circumstances beyond your control.

For everything above, you'll have the opportunity to revise your work. Learning doesn't happen immediately, and this way your final grade will reflect how well you understand the material and the skills you've acquired by the end of the semester. It's all right to make a mistake and try again!

Here's how your grade will be determined:

	D	C	B	A
Proof Techniques	3 Satisfactory	4 Satisfactory	5 Satisfactory	6 Satisfactory
Concepts	15 Satisfactory, 1+ per chapter	17 Satisfactory, 1+ per chapter	19 Satisfactory, 1+ per chapter	21 Satisfactory, 1+ per chapter
Homework	4 Complete	5 Complete	6 Complete	7 Complete

I'll set + and – grades based on how close you are to the next higher letter grade.

Calculator policy: You are permitted to use any scientific or four-function calculator you like on quizzes and the final exam, but not a graphing calculator. You are allowed to use any kind of calculator you like when you do your homework, but I suggest you use a calculator you're allowed to use on quizzes and the final so you'll be familiar with it then.

Academic honesty: You are expected to follow the Hofstra University Honor Code at all times. All forms of academic dishonesty are serious ethical and professional infractions. Hofstra's policy on academic honesty reads: "The academic community assumes that work of any kind—whether a research paper, a critical essay, a homework assignment, a test or quiz, a computer program, or a creative assignment in any medium—is done, entirely and without unauthorized assistance, by the individual(s) whose name(s) it bears." See the "Procedure for Handling Violations of Academic Honesty by Undergraduate Students at Hofstra University" (<https://www.hofstra.edu/fps/11.html>) for a detailed discussion of dishonesty and Hofstra's procedures for handling violations. Violations will be reported.

You're encouraged to talk about the homework assignments and reassessments with your classmates and ask me questions if you get stuck, though copying your classmates' solutions (or anyone else's!) is not allowed. I expect you to list the names of the students you worked with on each of your assignments. **The use of AI and ML tools is prohibited as per** <https://www.hofstra.edu/provost/policies-wording-syllabi-ai-prohibited.html>.

Accessibility: If you believe you need accommodations for a disability, please contact Student Access Services (SAS). In accordance with Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990, qualified individuals with disabilities will not be discriminated against in any programs or services available at Hofstra University. Individuals with disabilities are entitled to accommodations designed to facilitate full access to all programs and services. SAS is responsible for coordinating disability-related accommodations and will provide students with documented disabilities accommodation letters as appropriate. Since accommodations may require early planning and are not retroactive, please contact SAS as soon as possible. All students are responsible for providing accommodation letters to each instructor and for discussing the specific accommodations needed with them and how they can be best implemented in each course.

For more information on services provided by the university and for submission of documentation, please contact Student Access Services, Room 102, Roosevelt Hall ((516) 463-7075).

Religious observances: If you have a religious obligation that conflicts with your participation in the course, you are responsible for notifying me far enough in advance for us to discuss your situation and agree on accommodations. Note that all students are responsible for completing all the work for the course. For more information, see Part II(B) of “Academic Freedom and Civil Liberties of Students at Hofstra University” (<https://www.hofstra.edu/fps/12.html>).

Diversity: Hofstra University fosters a belief in an inclusive intellectual community, enriched and enhanced by the representations of diversity on the campus and within its learning spaces. Students from diverse backgrounds and perspectives will be well served in this education experience, and learning needs will be a priority in and out of the classroom. The diversity of identities and experiences that students bring to this class will be viewed as a resource, strength, and benefit. It is the goal and the responsibility of the instructor to present materials and activities respectful of diversity dimensions—race, gender, sexuality, ability, age, socioeconomic status, ethnicity, religion, culture, and other visible and nonvisible identities.

If you have any concerns about the class environment, I encourage you to speak with me. If you’d like to discuss issues related to your identity or how you might identify or are looking to connect with other students with identities similar to your own, please contact the Office of Intercultural Engagement and Inclusion at (516) 463-6957 or IEI@hofstra.edu. If you’ve experienced or been a witness to a discriminatory incident, please contact the university’s Chief Diversity and Inclusion Officer at diversityinclusion@hofstra.edu.

Discriminatory harassment, relationship violence, and sexual misconduct:

Hofstra prohibits sexual and other discriminatory harassment, stalking, domestic and dating violence, sexual assault and other sexual misconduct. If you or someone you know believes they have been subjected to any of these offenses, help is available. To make a report, or for more information (see <https://www.hofstra.edu/title-ix/about.html>), please contact the Title IX Officer for Student Issues at (516) 463-5841 or StudentTitleIX@hofstra.edu or Public Safety at (516) 463-6606.

Confidential resources and support are also available from medical and counseling professionals in the Student Health and Counseling Center at (516) 463-6745 and clergy in the Interfaith Center.

For general university policies, please see

<https://www.hofstra.edu/provost/policies-wording-syllabi.html>.