

MATH 114, Introduction to Higher Mathematics: Spring 2023

A quick reference guide

Instructor: Johanna Franklin

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Office: Roosevelt 315A

Office hours: Mondays 10:30 a.m.–noon, Wednesdays 3:30–5:00 p.m. (both days in person and over Zoom)

Office phone: (516) 463-5739

Website: Blackboard (course site) and <https://hofstramath114s23.slack.com> (Slack workspace)

Semi-official course description: An introduction to advanced mathematics through the study of proof techniques using topics in mathematics such as logic, set theory, number theory and graph theory.

Texts: *Book of Proof* by Richard Hammack (free online or cheap in print) and *An Introduction to Mathematical Thinking: Algebra and Number Systems* by William J. Gilbert and Scott A. Vanstone (on reserve in Axinn)

Classroom and time: Roosevelt Hall 106, TR 9:40–11:05 a.m.

Grading scheme:

- Homework: 25%
- 2 midterms (March 2 and April 6) and a final exam (May 18): 15% each
- Portfolio: 15%
- Homework revisions: 9%
- Departmental participation: 6%

Homework will be assigned weekly. You'll have two options for submission: you can submit it on paper during class on Thursday, or you can submit it via Blackboard by Friday at noon. There are advantages to each: if you turn it in during class, you'll likely get more detailed feedback, but if you turn it in via Blackboard, you'll have more time to complete it and you won't have to worry about losing your only copy before you do the revisions.

If you have an emergency that prevents you from turning in your homework on time, please let me know as soon as possible. I'll drop your lowest homework score regardless.

There will be two midterms and a noncumulative final exam in this class. The final exam is tentatively scheduled for Thursday, May 18 at 10:30 a.m. You must be available to take your final exam at this time unless you have a documented emergency or unless you make alternate arrangements with me by April 24. Note that I will only make these arrangements in the event of extenuating circumstances beyond your control.

Instead of a cumulative final exam, you'll revise a homework problem that you earned half the points or fewer on and explain your new solution to me for each homework set except the last one.

You'll maintain a portfolio of revised proofs from each of your homeworks and a few short essays to be submitted at the end of the semester; there will be some checkpoints along the way.

Part of the purpose of this course is to welcome you to the math department and help you become part of it, so part of your grade will be based on precisely that! Please see Blackboard for more information.

Calculator policy: This won't be a calculation-heavy course, but you may want a calculator at some points. You are permitted to use scientific calculators on exams, but not graphing calculators or smart watches. You're welcome to use any kind of calculator you like on your homework, though I'd encourage you not to use anything you won't be allowed to use on exams so you don't get used to having it.

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 problems and portfolio essays 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 homework assignments.

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, 107 Student Center, (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/course-syllabi-information.html>.