

**Instructor:** Kunjakanan Nath

**Email:** knath@illinois.edu

**Office:**

**Meeting times:**

- Section A1: MWF 8-8:50 am in 243 Altgeld Hall (week 1 via zoom)
- Section B1: MWF 9-9:50 am in 341 Altgeld Hall (week 1 via zoom)

**Office hours:** Wednesday (11:30 am–1:00 pm) and Thursday (3:30-5 pm) via zoom or by appointment

**Course description:** The goal of the course is to introduce students with mathematical language, rigorous mathematical thinking, fundamental mathematical structures, and methods of proof. Topics include logic, set theory, induction, equivalence relations, functions, number theory, cardinality, and convergence.

**Textbook:** [An Introduction to Abstract Mathematics](#) (Donaldson and Pantano).

The hard copy of the book can be found at Illini Union Bookstore. We will cover all of the topics in this book and will cover other topics, namely, real numbers, limit, Cauchy criterion, infinite series during the last month of class.

**Grading:** The final grade will be based on the following percentages:

- Three midterm exams: 10% for the lowest one and the other two will be 20% each.
- Final exam: 30%
- Homework: 20%

All grades will be numerical (e.g. 0–100). For final course grades, 93% guarantees an A, 90% guarantees an A-, 87% guarantees a B+, 83% guarantees a B, 80% guarantees a B-, 75% guarantees a C+, 70% guarantees a C.

**Homework:** There will be homework assignments every week. The lowest homework score will be dropped. At most two homework assignments will be accepted up to 24 hours after it is due. Otherwise late homework will not be accepted. However, if there is a reasonable excuse for missing more than two assignments, then those scores will be average of the other assignments.

**Homework submission:** Homework must be uploaded electronically (links to be provided) on the due date. Please write your name, homework number, and section number on each homework. Homework will be graded on mathematical content, quality of exposition, and completeness.

You are allowed and encouraged to work in groups. However, you must prepare the final write-up on your own.

**Exams:** There will be three midterm exams and a cumulative final exam. Midterm dates are tentatively planned as: February 18, March 25, and April 22. The cumulative final exam will be held in the week May 6-13 (TBD).

**Make-ups:** If you have a documented and valid reason for missing an exam (i.e., illness, a death in the family, Covid-19 exposure, athletic travel for UIUC, etc), please contact me as soon as possible

to make arrangements. This will typically be dealt with by weighting other exams more heavily so that it does not count toward your overall average.

**Class attendance:** It is expected that students will attend each class period. If you feel ill, then you must not attend class according to University policy. In this case you can email me and the absence will be excused.

**Academic honesty:** Students are expected to follow the [University of Illinois student conduct code](#). The students are allowed and encouraged to work in groups. However, they must prepare the write-ups on their own.

**Resources for students with disabilities:** To obtain disability-related academic adjustments or auxiliary aids, students with disabilities should contact the course instructor and Disability Resources and Educational Services (DRES). For more information, go to the [DRES website](#).

**Support resources and supporting fellow students in distress:** As members of the Illinois community, we each have a responsibility to express care and concern for one another. If you come across a classmate whose behavior concerns you, whether in regards to their well-being or yours, we encourage you to refer this behavior to the Student Assistance Center (333-0050) or online at [odos.illinois.edu/community-of-care/referral/](https://odos.illinois.edu/community-of-care/referral/). Based upon your report, staff in the Student Assistance Center reaches out to students to make sure they have the support they need to be healthy and safe.

Further, we understand the impact that struggles with mental health can have on your experience at Illinois; significant stress, strained relationships, anxiety, excessive worry, alcohol/drug problems, a loss of motivation, or problems with eating and/or sleeping can all interfere with optimal academic performance. We encourage all students to reach out to talk with someone, and want to make sure you are aware that you can access mental health support at the Counseling Center ([counselingcenter.illinois.edu](https://counselingcenter.illinois.edu)) or McKinley Health Center ([mckinley.illinois.edu](https://mckinley.illinois.edu)).