

Mathematics 3345

- Meeting Time:** MWF 10:20-11:15 AM , Evans Lab 2003
- Website:** <http://u.osu.edu/taylor.2952/teaching/math-3345/>
- Instructor:** Professor Krystal Taylor
- Grader:** Elizabeth Campolongo (grad student) MW 318
campolongo.4@osu.edu
- Office Hours:** Monday 11:20 am - 12:15 pm (Taylor- MW 622)
Tuesday 3 pm - 4pm (Campolongo- MW 318)
- Email:** taylor.2952@osu.edu (I prefer that you speak to me directly before or after class as it is easier to communicate in person.)
- Official Text:** **The Fundamentals of Higher Mathematics**, N. Falkner
- Recommended Texts:** **The Cauchy-Schwarz Master Class** (free online)
Mathematics and Logic (Kac and Ulam)
Relevant readings will be on the homework.
- Focus:** The focus of this class will be learning how to read and write mathematical proofs. There will be a number of activities to develop students' writing skills. Consequently, the standards for writing in this class will be higher than in previous math classes, and frequent reading will be assigned (in addition to occasional YouTube videos).
- Content:** logic, proof technique, sets, functions, relations, notions of infinity, some history and philosophy of mathematics
- Technology:** Typing up your homework using $\text{T}_\text{E}\text{X}$ is encouraged. Please do not surf or text during class as it is distracting to me and possibly to the people around you.
- Homework, Quizzes:** Homework will be collected **weekly on Wednesday** at the beginning of class. No late homework will be accepted. You will also be given regular reading assignments. (HW assignment 1 is due January 10, no HW March 11) Homework can be handwritten (if legible), word processed, or in some variety of $\text{T}_\text{E}\text{X}$. If wordprocessed or in $\text{T}_\text{E}\text{X}$, please use at least 12 point font. Emailed homework **will not be accepted** except under special circumstances.

Turned-in homework should have your full name and be stapled. Quizzes will be announced at least one class in advance and have the same weight as one homework.

Writing:

After the first midterm, we will begin weekly writing assignment called Proof Journals. The aim in writing mathematics is not merely to demonstrate that *you know something* but rather to *explain the material to someone who does not yet know it*. Consequently, you should provide sufficient details and aim to write with clarity. We will discuss the Proof Journals further in class.

Bonus:

There will be harder bonus problems on the homework and on exams. While they earn extra credit, they give students a chance to distinguish themselves if they might like to request a letter of recommendation from the instructor. Extra credit will be used to decide grades for border cases. Writing homework using \TeX is another opportunity for extra credit.

Exams:

There will be two in-class midterm exams and a comprehensive final.

Midterm 1	Friday, February 7	in class
Midterm 2	Friday, March 20	in class
Final Exam	Tuesday, April 23	10:00 am - 11:45 am

Exams are closed book and closed notes. Problems on the exams will generally be similar to the homework and quiz problems. The instructor will be maintaining a list of the type of problems that can be asked on the exam. You can expect review material to be given and chances to ask questions.

If a midterm is missed and the instructor is given prior notice and official documentation of an emergency or illness, the other exams will be re-weighted.

Grading:

Homework, Proof Journals, final project	35%
Midterm exams	40%
Final exam	25%

Individual test scores will not be re-centered. Raw scores will be used to compute overall course scores. Course grades will be determined by applying cut-offs to the course scores. The instructor will not take personal factors into account when assigning course grades.

Grade Revisions:

You may request that a homework or exam exercise be re-graded. This request must be *in writing* and turned in at the beginning of the class immediately after the work is returned to you. No late grade revision requests will be accepted.

- Academic Misconduct:** It is the responsibility of the Committee on Academic Misconduct to investigate or establish procedures for the investigation of all reported cases of student academic misconduct. The term “academic misconduct” includes all forms of student academic misconduct wherever committed; illustrated by, but not limited to, cases of plagiarism and dishonest practices in connection with examinations. Instructors shall report all instances of alleged academic misconduct to the committee (Faculty Rule 3335-5-48.7). For additional information, see the Code of Student Conduct at <http://studentlife.osu.edu/csc/>.
- CCS:** As a student you may experience a range of issues that can cause barriers to learning, such as strained relationships, increased anxiety, alcohol/drug problems, feeling down, difficulty concentrating and/or lack of motivation. These mental health concerns or stressful events may lead to diminished academic performance or reduce a student’s ability to participate in daily activities. The Ohio State University offers services to assist you with addressing these and other concerns you may be experiencing. If you or someone you know are suffering from any of the aforementioned conditions, you can learn more about the broad range of confidential mental health services available on campus via the Office of Student Life Counseling and Consultation Services (CCS) by visiting ccs.osu.edu or calling 614-292-5766. CCS is located on the 4th Floor of the Younkin Success Center and 4th Floor of the PAES Building. 24 hour emergency help is also available through the National 24/7 Prevention Hotline at 1-800-273-TALK or at suicidepreventionlifeline.org.
- Diversity:** The Ohio State University affirms the importance and value of diversity in the student body. Our programs and curricula reflect our multicultural society and global economy and seek to provide opportunities for students to learn more about persons who are different from them. We are committed to maintaining a community that recognizes and values the inherent worth and dignity of every person; fosters sensitivity, understanding, and mutual respect among each member of our community; and encourages each individual to strive to reach his or her own potential. Discrimination against any individual based upon protected status, which is defined as age, color, disability, gender identity or expression, national origin, race, religion, sex, sexual orientation, or veteran status, is prohibited.
- SLDS Statement:** **The University strives to make all learning experiences as accessible as possible. If you anticipate requiring accommodations based on a disability (including mental health, chronic or temporary medical conditions), you are encouraged to register as soon as possible with the Student Life Disability Services to establish reasonable accommodations. After registration, please make arrangements with me so that they may be implemented in a timely fashion. SLDS contact information: slds@osu.edu; 614-292-3307; slds.osu.edu; 098 Baker Hall, 113 W. 12th Avenue.**