

Syllabus for Math 8110: Higher Linear Algebra, Autumn 2023

Professor. David Penneys
Office. Math Tower (MW) 752
Hours. By appointment
Email. penneys.2(at)osu.edu

Course website. The course website is:
<https://people.math.osu.edu/penneys.2/8110/Math8110Autumn2023.html>

Sources. There is no official textbook for the course. I will be compiling course notes, and other resources will be listed on the course website.

Prerequisites. Linear algebra, basic category theory, or permission from instructor.

Homework. Students **must** work together to solve problems in groups of 2 or 3. Ideally, students will not work with the same collaborators for the entire semester, but will try to work with everyone in the classroom at least once. However, if students develop a very good working collaboration with someone, they are encouraged to continue working with that person. Each group will write up their solutions. Groups may use whatever resources they want, but they must cite all their sources. **Lack of citation will be regarded as academic misconduct/plagiarism.**

Students should turn in 2/3 completed problem/week; the number should be equal to the size of the group. This is a lower bound of what students are expected to do. I will not tell students which exercises to do – exercises should be chosen from exercises given in class.

There is a strict format for homework. Groups should hand in a final copy of their homework on plain white paper without lines, perforations, or holes. Please use a new page for each problem. The final copy should represent the student's best effort, as homework counts for the entire class grade. Groups are encouraged to typeset their homework with \LaTeX , in which case they do not need to stick to one page per problem.

In the event that homework is not completed in the required format, the homework will be directly returned to the group, who may hand it in at the next class. Homework will be due at the beginning of lecture on Mondays. Groups may choose to email me their homework before the deadline.

A perfect score on homework will earn a score of zero points. Points will be deducted for mistakes or 'hot takes' which are not sufficiently defended. If sufficiently many points are deducted, I will ask students to redo the homework. Most likely, everyone who attends the class regularly and completes their homework will earn an A, regardless of points subtracted from homework.

Grading. Groups' grades will be entirely based on homework and attendance. In rare circumstances, and with prior consent from me, a student may write a survey article on a topic of my choice and give a lecture to the class on their article to replace some percentage of the homework grade.

Class cancellation policy. Should in-person classes be canceled, I will notify you as to which alternative methods of teaching will be offered to ensure continuity of instruction for this class. Communication will be via your official university email.

Incomplete grades. From

<http://artsandsciences.osu.edu/academics/current-students/advising/policies>

An ‘I’ indicates that a student has completed a major portion of the work in the course in a satisfactory manner, but for reasons judged by the instructor to be legitimate, a portion of the course requirements remains to be completed. If illness or an emergency prevents you from finishing a course, you may request an ‘Incomplete’ from the instructor. When you receive this grade, you must consult with the instructor as soon as possible to make arrangements for completing the course requirements. Incomplete work must be completed no later than the sixth week of the following semester. If the work is not made up by the due date, the ‘I’ mark will be changed to the alternate grade the instructor reported.

Academic Misconduct Statement. 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/>.

Disability Services Statement. The university strives to make all learning experiences as accessible as possible. In light of the current pandemic, students seeking to request COVID-related accommodations may do so through the university’s request process <https://slds.osu.edu/covid-19-info/covid-related-accommodation-requests/> managed by Student Life Disability Services. If you anticipate or experience academic barriers based on your disability (including mental health, chronic, or temporary medical conditions), please let me know immediately so that we can privately discuss options. To establish reasonable accommodations, I may request that you register with Student Life Disability Services. After registration, make arrangements with me as soon as possible to discuss your accommodations so that they may be implemented in a timely fashion. SLDS contact information: slds@osu.edu; 614-292-3307; <http://slds.osu.edu>; 098 Baker Hall, 113 W 12th Ave.

Counseling and Consultation Services. 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.

Religious Accommodations Statement. It is Ohio State's policy to reasonably accommodate the sincerely held religious beliefs and practices of all students. The policy permits a student to be absent for up to three days each academic semester for reasons of faith or religious or spiritual belief.

Students planning to use religious beliefs or practices accommodations for course requirements must inform the instructor in writing no later than 14 days after the course begins. The instructor is then responsible for scheduling an alternative time and date for the course requirement, which may be before or after the original time and date of the course requirement. These alternative accommodations will remain confidential. It is the student's responsibility to ensure that all course assignments are completed.