

# Math 0280 - Introduction to Matrices and Linear Algebra

## Student Guidelines and Syllabus

### About the course

The principal topics of the course include vectors, matrices, determinants, linear transformations, eigenvalues and eigenvectors, and selected applications.

### Course Prerequisites

Math 0220 or equivalent, with a grade of C or better.

### Course Delivery

This course will be taught in-person unless the university health policy mandates that the course be moved online. This means that the default format will consist of your instructor presenting material in the classroom. Your instructor may offer supplementary methods for viewing lecture such as live-streaming lectures or recording the lectures for later viewing. However, this is the instructor's prerogative. This course meets three times per week and has no recitation. The default website for the course is the Canvas webpage. Please check it regularly for announcements and assignments.

### Textbook

The text for this course is Linear Algebra, A Modern Introduction, 4th Edition by David Poole. All students who register for this course are automatically enrolled in the [RedShelf Inclusive Access](#) program and will be charged on their Pitt student bill unless they [opt out](#) before the end of the add/drop period. This program provides students with discounted access to the digital version of the textbook and the publisher's WebAssign content, but only the textbook itself will be required. If you already have a copy of the textbook or would prefer to purchase it from a different source (for example, you may be able to find a used copy of the first or second edition at a lower cost), then you should opt out of Inclusive Access. You will be able to opt out by clicking on the "RedShelf Inclusive Access" link in your course on Canvas. More detailed instructions for opting out can be found [here](#). If you do not opt out of Inclusive Access, then you will be able to access the digital textbook through a link to WebAssign in Canvas.

### Course Objectives

Students who complete Math 0280 are expected to have mastered the fundamental ideas of linear algebra and to be able to apply these ideas to a variety of practical problems. More specifically, in Math 0280 you will be expected to:

- explore and learn the core concepts associated with systems of linear equations, manipulation of matrices, linear transformations, orthogonality, and eigenvalues/eigenvectors;
- begin to think abstractly about certain elements of these topics;
- understand how these ideas can be used to solve problems and compute desired quantities.

### **Homework/quizzes/written assignments**

Your instructor will assign homework on a regular basis, which usually means weekly. However, the method of submission will vary between sections. Some sections will utilize WeBWork, an online homework submission tool, while others will assign homework requiring written solutions. Please refer to your instructor to determine the homework format for your class.

### **Practice Homework**

All sections are given a common list of [practice problems](#) from the textbook, listed on the course schedule. You are expected to solve these problems, although they will not be collected and graded. Note that solving *all* of the suggested problems will be time-consuming. It is best to use the suggested problems to gain experience in the areas in which you struggle most. Exam and quiz problems may be modeled on these problems.

### **Administration of Exams and Quizzes**

Unless your instructor specifies a different format, exams and quizzes will be given in class.

### **Grades**

Your course grade will be determined as follows:

- Two midterm exams: 50% (25 % each)
- Final exam: 30%
- Written assignments/quizzes/homework assignments/Participation: 20%

Some sections may deviate slightly from this formula. Any variations will be announced by your instructor at the beginning of the term.

### **Final Exam Policy**

All day sections will take a departmental final exam at a day and time to be scheduled by the registrar. **Calculators will not be permitted on the departmental final exam.**

Evening sections will meet through final exam week, and the final exam will be given during the last one or two scheduled class periods.

### **Final Grade Policy**

Prior to the fall 2022 semester, the math department implemented a final grade policy. It stated that your final grade in the course cannot exceed your final exam grade by more than one letter. For example, the highest grade one could earn if they scored an F on the final exam would be a D in the course. **This policy will no longer be implemented.** Your final grade will be computed based on the weights that your instructor lists under the “Grades” category. Your final exam

grade will only count as much as your instructor specifies (e.g. 40%) and will not limit your grade in any other way.

### **Exam Dates**

See the class schedule for the dates of the two midterm exams. The date and time of the final exam will be announced by your instructor and in PeopleSoft.

### **Computer Accounts**

As a University of Pittsburgh student, you should already have a Pitt computer account. You will need to know your username and password to access the computer resources.

### **Getting Help**

#### **Tutoring**

The Math Assistance Center offers free tutoring by appointment, including same-day appointments if they are available. The MAC will also offer walk-in assistance provided by TA's. For more information about scheduling appointments or visiting the MAC for walk-in hours, please visit the [MAC Website](#).

Note that the MAC opens during the second week of courses.

#### **Office Hours**

Your instructor and TA will announce their office hours and list them on Canvas. Your instructor or TA may opt to hold office hours over Zoom.

#### **Disability Resource Services**

If you have a disability for which you are or may be requesting an accommodation, you are encouraged to contact both your instructor and the [Office of Disability Resources and Services](#) (DRS), 140 William Pitt Union (412) 648-7890, drsrecep@pitt.edu, (412) 228-5347 for P3 ASL users, as early as possible in the term. DRS will verify your disability and determine reasonable accommodations for this course.

## **Course Policies**

#### **Academic Integrity**

Cheating/plagiarism will not be tolerated. Students suspected of violating the [University of Pittsburgh Policy on Academic Integrity](#) may incur a zero score for the assessment in question. Additional sanctions may be imposed, depending on the severity of the infraction. Even during this COVID-19 pandemic, Academic Integrity policies will be enforced. If there is any doubt about the originality of a student's submission for an assessment, they may be asked to explain their work during a one-on-one meeting with their instructor. If the student's

explanations are unsatisfactory, they may receive a zero score for the assessment, or the instructor may choose to administer an alternative assessment in a different format.

Please note, in particular, that Pitt has a data sharing arrangement with Chegg.com that enables us to identify instances in which Chegg.com has been used to cheat on assessments. Consequences of being caught in this academic integrity violation have included zero scores on assessments and F grades for the course.

## **Health and Safety**

It is extremely important that you abide by public health regulations and University of Pittsburgh health standards and guidelines. For the most up-to-date information and guidance, please visit [coronavirus.pitt.edu](https://coronavirus.pitt.edu) and check your Pitt email for updates before each class.

## **Diversity and Inclusion**

The University of Pittsburgh does not tolerate any form of discrimination, harassment, or retaliation based on disability, race, color, religion, national origin, ancestry, genetic information, marital status, familial status, sex, age, sexual orientation, veteran status or gender identity or other factors as stated in the University's Title IX policy. The University is committed to taking prompt action to end a hostile environment that interferes with the University's mission. For more information about policies, procedures, and practices, see: <https://www.diversity.pitt.edu/civil-rights-title-ix-compliance/policies-procedures-and-practices>.

We ask that everyone in the class strive to help ensure that other members of this class can learn in a supportive and respectful environment. If there are instances of the aforementioned issues, please contact the Title IX Coordinator, by calling 412-648-7860, or e-mailing [titleixcoordinator@pitt.edu](mailto:titleixcoordinator@pitt.edu). Reports can also be filed online: <https://www.diversity.pitt.edu/make-report/report-form>. You may also choose to report this to a faculty/staff member; they are required to communicate this to the University's Office of Diversity and Inclusion. If you wish to maintain complete confidentiality, you may also contact the University Counseling Center (412-648-7930).

## **Copyright**

Some of the materials in this course may be protected by copyright. United States copyright law, 17 USC section 101, et seq., in addition to University policy and procedures, prohibit unauthorized duplication or retransmission of course materials. See the [Library of Congress Copyright Office](#) and the [University Copyright Policy](#).