

# **Math 160**

## **3.0 hours – 3.0 credits**

### **Course Details**

Section number, Day/Time, Room, etc.

### **Instructor Information**

Instructor, contact info, etc.

### **Office Hours**

Office hours, etc.

### **Blackboard**

Blackboard info

### **Prerequisite**

Math 12550 or appropriate score on the placement exam.

### **Textbook**

*Linear Algebra with Applications* by Steve Leon, Lisette de Pillis, Pearson Publishers  
10<sup>th</sup> Edition eBook ISBN: 9780136745976

### **Topics**

- 1.1-1.5 Matrices and Systems of Equations
- 2.1-2.2 Determinants
- 3.1-3.4 Vector Spaces, Linear Dependence and Independence, Bases and Dimension
- 4.1-4.2 Linear Transformations
- 5.1. Orthogonality
- 6.1. Eigenvalues and Eigenvectors

Additional topics if time permits.

### **Learning Outcomes**

After completing this course, a student will be able to:

- Solve systems of linear equations using Gaussian elimination and Gauss-Jordan Elimination
- Perform operations using matrices and apply matrices in real-world applications
- Calculate determinants, understand their properties and some applications

- Define vector spaces, vector subspaces, and understand their properties
- Determine whether a set of vectors is linearly dependent or independent
- Find a basis for a vector space
- Find length and the dot product in Euclidean space
- Calculate eigenvalues and eigenvectors

## Homework

Homework will be assigned every week from the textbook.

## Exams

There will be two in-class exams and a final exam. The dates of the exams will be announced in class. The final exam will count twice. Of the four scores (exam 1, exam 2, final exam, final exam), the lowest score will be dropped. There are no make-ups for in-class exams. If an in-class exam is missed, a score of zero will be recorded and dropped. If you need to miss the final exam, please contact me as soon as possible. To receive an incomplete you must have taken at least one of the in-class exams, have a C average in the class overall, and have a legitimate excuse for missing the final exam. P/NC grading cannot be requested for this course.

## Calculators

A scientific calculator is permitted for exams. Graphing calculators, phones, etc. are not permitted.

## Grading

75% Exams  
20% Homework  
5% Participation

## Tutoring

Table tutoring and audiovisual materials are available at The Dolciani Mathematics Learning Center, located at the Silverstein Student Success Center 7<sup>th</sup> Floor Hunter East. Tutoring is available remotely and on site by appointment. Appointments can be booked through Navigate. For hours and more information visit their website [www.hunter.cuny.edu/dolciani](http://www.hunter.cuny.edu/dolciani).

## Student Resources

Counseling and Wellness Services offers free and confidential short-term counseling services, referrals, workshops, and support groups to all Hunter College students. Visit <http://www.hunter.cuny.edu/cws/counselingservices> for more information.

Visit <https://ww2.hunter.cuny.edu/students/student-life/emergency-support-and-resources/> for links to resources such as food pantries, emergency funding sources, and technology access.

Assistance with CUNY login (Blackboard, CUNYfirst), email, Hunter NetID:  
[studenthelpdesk@hunter.cuny.edu](mailto:studenthelpdesk@hunter.cuny.edu) , (212) 650-3624

Academic Advising: <http://www.hunter.cuny.edu/advising/>

Financial Aid: <https://hunter.cuny.edu/students/financial-aid/>

### **Academic Integrity**

“Hunter College regards acts of academic dishonesty (e.g., plagiarism, cheating on examinations, obtaining unfair advantage, and falsification of records and official documents) as serious offenses against the values of intellectual honesty. The College is committed to enforcing the CUNY Policy on Academic Integrity and will pursue cases of academic dishonesty according to the Hunter College Academic Integrity Procedures.”

### **Office of AccessABILITY**

“In compliance with the American Disability Act of 1990 (ADA) and with Section 504 of the Rehabilitation Act of 1973, Hunter College is committed to ensuring educational parity and accommodations for all students with documented disabilities and/or medical conditions. It is recommended that all students with documented disabilities (Emotional, Medical, Physical and/or Learning) consult the Office of Accessibility.” Call (212-772-4857)/TTY (212-650-3230) or visit <http://www.hunter.cuny.edu/access> for more information. Students are welcome to speak with me privately about any accommodations.

### **CUNY Statement on Sexual Misconduct**

“In compliance with the CUNY Policy on Sexual Misconduct, Hunter College reaffirms the prohibition of any sexual misconduct, which includes sexual violence, sexual harassment, and gender-based harassment retaliation against students, employees, or visitors, as well as certain intimate relationships. Students who have experienced any form of sexual violence on or off campus (including CUNY-sponsored trips and events) are entitled to the rights outlined in the Bill of Rights for Hunter College.

a. Sexual Violence: Students are strongly encouraged to immediately report the incident by calling 911, contacting NYPD Special Victims Division Hotline (646-610-7272) or their local police precinct, or contacting the College's Public Safety Office (212-772-4444).

b. All Other Forms of Sexual Misconduct: Students are also encouraged to contact the College's Title IX Campus Coordinator, Dean John Rose ([jtrose@hunter.cuny.edu](mailto:jtrose@hunter.cuny.edu) or 212-650-3262) or Colleen Barry ([colleen.barry@hunter.cuny.edu](mailto:colleen.barry@hunter.cuny.edu) or 212-772-4534) and seek complimentary services through the Counseling and Wellness Services Office, Hunter East 1123.”

CUNY Policy on Sexual Misconduct Link: <http://www.cuny.edu/about/administration/offices/la/Policy-on-Sexual-Misconduct-12-1-14-with-links.pdf>

August 15, 2022