# **Linear Algebra II** MATH 232 Spring 2020

Instructor: John Terilla

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In Spring 2020, Queens College students will have an opportunity to strengthen their understanding of vector spaces and linear maps in a rarely offered section of Math 232 Linear Algebra II. This course will cover material that will be useful for students interested in pure mathematics, applied mathematics, or related fields.

Linear algebra is used in almost all areas of mathematics and is important in many scientific fields, including data science, physics, chemistry, biology, engineering, and computer science. For certain fields of study, such as Deep Learning and Quantum Computing, linear algebra is indispensable.

### Topics that will be covered include

- Vector spaces and linear maps
- Invariant subspaces and canonical forms
- Inner product spaces and the spectral theorem
- Singular value decompositions

# **Practical Information**

## Textbook

The textbook for Math 232 is <u>Linear Algebra Done Right</u>, Third Edition, by Sheldon Axler. There are short <u>Done Right Videos</u> that accompany the textbook.

#### **Meeting Time**

Monday and Wednesday 3:10 PM -- 4:25 PM in Kiely 420.

Be aware of the <u>CUNY Academic Calendars</u>. In particular, class will not meet on Wednesday February 12, Monday February 17, Wednesday April 8, Monday April 13, or Wednesday April 15.

#### Exams

Course grades will be determined by four midterm exams, one final exam, and work on homework and quizzes

- Midterm 1 (18%): Monday, Februrary 10
- Midterm 2 (18%): Wednesday, March 4
- Midterm 3 (18%): Monday, March 30
- Midterm 4 (18%): Wednesday, May 6
- Final Exam (18%): TBD (Exam week 5/16 -- 5/22)
- Homework and quizzes (10%)

#### Assignments

Homework will be assigned regularly and posted on the course webpage: <u>https://qcpages.qc.cuny.edu/~jterilla/Spring2020/math232/index.html</u>

#### **Office Hours**

- 12:00 -- 1:00 Mondays and Wednesdays in Kiely 607
- And by appointment