## Wednesday, May 31, 2023

# 10-10:50 am (17-101)

## What to do to be ready for tomorrow

- Finish the 5.4-6 HW and Q early to be ready for the Assessment
- Last Assessment: Assessment 8 is this week on 5.3-6.
  - No proof or T/F
  - o Be able to diagonalize a matrix
  - o Be able to find complex eigenvectors and eigenvalues
  - Understand the basics of dynamical systems
  - o Find rotation-scaling matrices similar to 2x2 matrices with complex eigenvalues.
- We will go over the start of 6.2 on Friday saw watch that video before Friday 6.

# What's up next calendar

| 5/31 | Wed | Catch-up and review day                          |              |                               |
|------|-----|--|--------------|-------------------------------|
|      |     | Assessment 8 (5.3-6), Discussion Seminar VIII    |              |                               |
|      |     | 6.2: Orthogonal Sets                             |              |                               |
| -    |     | Weekend - No Class                               |              |                               |
|      |     |  |              |                               |
| 6/4  | Sun | Weekend - No Class                               | 5.4-6 HW & Q | Slack 9 and Notes 9 (5.4-6.1) |
| 6/5  | Mon | 6.2: Orthogonal Sets                             |              |                               |
| 6/6  | Tue | 6.3 & 6.4: Orthogonal Projections & Gram-Schmidt | 6.1 HW & Q   |                               |
| 6/7  | Wed | 6.5 & 6.6: Least-Squares Problems                |              |                               |
| 6/8  | Thu | Catch-up and review day                          | 6.2 HW & Q   |                               |
| 6/9  | Fri | Catch-up and review day                          |              |                               |
| 6/10 | Sat | Weekend - No Class                               |              |                               |
| 6/11 | Sun | Weekend - No Class                               | 6.3/4 HW & Q | Slack 10                      |
| 6/12 | Mon | Final Exam (10 - 11:50 am)                       |              |                               |
| 6/13 | Tue | Final Exam (11 - 12:50 pm)                       | 6.5/6 HW & Q |                               |

## 11-12:05 pm (17-101)

#### What to do to be ready for tomorrow

- Finish the 5.4-6 HW and Q early to be ready for the Assessment
- Last Assessment: Assessment 8 is this week on 5.3-6.
  - No proof or T/F
  - o Be able to diagonalize a matrix
  - Be able to find complex eigenvectors and eigenvalues
  - Understand the basics of dynamical systems
  - o Find rotation-scaling matrices similar to 2x2 matrices with complex eigenvalues.
- We will go over the start of 6.2 on Friday saw watch that video before Friday (3).

| 5/31 |     | 6.1: Inner Product, Length, & Orthogonality      |              |                               |
|------|-----|--|--------------|-------------------------------|
| 6/1  | Thu | Assessment 8 (5.3-6), Discussion Seminar VIII    |              |                               |
| 6/2  | Fri | No class on Fridays                              |              |                               |
| 6/3  | Sat | Weekend - No Class                               |              |                               |
| 6/4  | Sun | Weekend - No Class                               | 5.4-6 HW & Q | Slack 9 and Notes 9 (5.4-6.1) |
| 6/5  | Mon | 6.2: Orthogonal Sets                             |              |                               |
| 6/6  | Tue | 6.2: Orthogonal Sets                             | 6.1 HW & Q   |                               |
| 6/7  | Wed | 6.3 & 6.4: Orthogonal Projections & Gram-Schmidt |              |                               |
| 6/8  | Thu | 6.5 & 6.6: Least-Squares Problems                | 6.2 HW & Q   |                               |
| 6/9  | Fri | No class on Fridays                              |              |                               |
| 6/10 | Sat | Weekend - No Class                               |              |                               |
| 6/11 | Sun | Weekend - No Class                               | 6.3/4 HW & Q | Slack 10                      |
| 6/12 | Mon | Final Exam (10 - 11:50 am)                       |              |                               |
| 6/13 | Tue | Final Exam (11 - 12:50 pm)                       | 6.5/6 HW & Q |                               |
|      |     |  |              |                               |

# Tuesday, May 30, 2023

# 10-10:50 am (17-101)

Home stretch! Just four lessons to go!

# What to do to be ready for tomorrow

- Finish the 5.4-6 HW and Q early to be ready for the Assessment
- Tomorrow is a catch-up day
- Last Assessment: Assessment 8 is this week on 5.3-6.

## What's up next calendar

| 5/30 | Tue | 6.1: Inner Product, Length, & Orthogonality      |              |                               |
|------|-----|--|--------------|-------------------------------|
| 5/31 | Wed | Catch-up and review day                          |              |                               |
| 6/1  | Thu | Assessment 8 (5.3-6), Discussion Seminar VIII    |              |                               |
| 6/2  | Fri | 6.2: Orthogonal Sets                             |              |                               |
| 6/3  | Sat | Weekend - No Class                               |              |                               |
| 6/4  | Sun | Weekend - No Class                               | 5.4-6 HW & Q | Slack 9 and Notes 9 (5.4-6.1) |
| 6/5  | Mon | 6.2: Orthogonal Sets                             |              |                               |
| 6/6  | Tue | 6.3 & 6.4: Orthogonal Projections & Gram-Schmidt | 6.1 HW & Q   |                               |
| 6/7  | Wed | 6.5 & 6.6: Least-Squares Problems                |              |                               |
| 6/8  | Thu | Catch-up and review day                          | 6.2 HW & Q   |                               |
| 6/9  | Fri | Catch-up and review day                          |              |                               |
| 6/10 | Sat | Weekend - No Class                               |              |                               |
| 6/11 | Sun | Weekend - No Class                               | 6.3/4 HW & Q | Slack 10                      |
| 6/12 | Mon | Final Exam (10 - 11:50 am)                       |              |                               |
| 6/13 | Tue | Final Exam (11 - 12:50 pm)                       | 6.5/6 HW & Q |                               |

# 11-12:05 pm (17-101)

# What to do to be ready for tomorrow

- Finish the 5.4-6 HW and Q early to be ready for the Assessment
- Watch the 6.1 video to be ready for class tomorrow (the last chapter!)
- Catch-up tomorrow at 10 am if you are interested and available
- Last Assessment: Assessment 8 is this week on 5.3-6.

| 5/20 | Tue | 5.4-6: Dynamical Systems                         |              |                               |
|------|-----|--|--------------|-------------------------------|
|      |     | , ,  |              |                               |
| 5/31 | Wed | 6.1: Inner Product, Length, & Orthogonality      |              |                               |
| 6/1  | Thu | Assessment 8 (5.3-6), Discussion Seminar VIII    |              |                               |
| 6/2  | Fri | No class on Fridays                              |              |                               |
| 6/3  | Sat | Weekend - No Class                               |              |                               |
| 6/4  | Sun | Weekend - No Class                               | 5.4-6 HW & Q | Slack 9 and Notes 9 (5.4-6.1) |
| 6/5  | Mon | 6.2: Orthogonal Sets                             |              |                               |
|      |     | 6.2: Orthogonal Sets                             | 6.1 HW & Q   |                               |
| 6/7  | Wed | 6.3 & 6.4: Orthogonal Projections & Gram-Schmidt |              |                               |
|      |     | 6.5 & 6.6: Least-Squares Problems                | 6.2 HW & Q   |                               |
| 6/9  | Fri | No class on Fridays                              |              |                               |
| 6/10 | Sat | Weekend - No Class                               |              |                               |
| 6/11 | Sun | Weekend - No Class                               | 6.3/4 HW & Q | Slack 10                      |
| 6/12 | Mon | Final Exam (10 - 11:50 am)                       |              |                               |
| 6/13 | Tue | Final Exam (11 - 12:50 pm)                       | 6.5/6 HW & Q |                               |

# Wednesday, May 24, 2023

# 10-10:50 am (17-101)

## What to do to be ready for tomorrow

- Finish the 5.2 HW and Q early to be ready for the Assessment
- Assessment 7 on 4.6-5.2 is this week
  - No proofs or T/F this week
  - o Change of coordinates (with numbers and/or graphs).
  - Finding eigenvalues and eigenvectors
- Bring a <u>printed</u> a copy of Discussion 7 on proofs
- We will continue the dynamical systems on Friday

## What's up next calendar

| 5/24 | Wed | Catch-up and review day                        |            |                             |
|------|-----|--|------------|-----------------------------|
| 5/25 | Thu | Assessment 7 (4.6-5.2), Discussion Seminar VII | 5.2 HW & Q |                             |
| 5/26 | Fri | 5.4-6: Dynamical Systems                       |            |                             |
| 5/27 | Sat | Weekend - No Class                             |            |                             |
| 5/28 | Sun | Weekend - No Class                             |            |                             |
| 5/29 | Mon | No class - Memorial Day                        | 5.3 HW & Q | Slack 8 and Notes 8 (5.2-3) |
| 5/30 | Tue | 6.1: Inner Product, Length, & Orthogonality    |            |                             |
| 5/31 | Wed | Catch-up and review day                        |            |                             |
| 6/1  | Thu | Assessment 8 (5.3-6), Discussion Seminar VIII  | ·          |                             |
| 6/2  | Fri | 6.2: Orthogonal Sets                           |            |                             |

# 11-12:05 pm (17-101)

# What to do to be ready for tomorrow

- Finish the 5.2 HW and Q early to be ready for the Assessment
- Assessment 7 on 4.6-5.2 is this week
  - No proofs or T/F this week
  - o Change of coordinates (with numbers and/or graphs).
  - Finding eigenvalues and eigenvectors
- Bring a <u>printed</u> a copy of Discussion 7 on proofs
- You've been such a wonderful class ...
- We will continue the dynamical systems on Tuesday

| 5/24 | Wed | 5.4-6: Dynamical Systems                       |            |                             |
|------|-----|--|------------|-----------------------------|
| 5/25 | Thu | Assessment 7 (4.6-5.2), Discussion Seminar VII | 5.2 HW & Q |                             |
| 5/26 | Fri | No class on Fridays                            |            |                             |
| 5/27 | Sat | Weekend - No Class                             |            |                             |
| 5/28 | Sun | Weekend - No Class                             |            |                             |
| 5/29 | Mon | No class - Memorial Day                        | 5.3 HW & Q | Slack 8 and Notes 8 (5.2-3) |
| 5/30 | Tue | 5.4-6: Dynamical Systems                       |            |                             |
| 5/31 | Wed | 6.1: Inner Product, Length, & Orthogonality    |            |                             |
| 6/1  | Thu | Assessment 8 (5.3-6), Discussion Seminar VIII  |            |                             |

## Wednesday, May 17, 2023

# 10-10:50 am (17-101)

#### What to do to be ready for tomorrow

- Finish the 4.5 HW and Q early to be ready for the Assessment
- Assessment 6 on 4.2-5 is this week
  - o Three named theorems in these sections, Zero (?) named theorems in Chapters 5 and 6
  - o Identifying a basis: Need two of (a.) linear independence, (b.) span, (c.) the right number of vectors.
  - A basis for Col A vs the subspace Nul A
  - o Be able to go back and forth between standard coordinates and B-coordinates
    - Using parallelogram grids
  - o Isomorphisms between Pn and Rn ... or M2x2 and R4.
- Bring a <u>printed</u> a copy of Discussion 6 on "Own your Body's Data"
- Watch the 5.2 video in prep for Friday

## What's up next calendar

|      |     | -  |            |                               |
|------|-----|--|------------|-------------------------------|
| 5/17 | Wed | Catch-up and review day                        |            |                               |
| 5/18 | Thu | Assessment 6 (4.2-5), Discussion Seminar VI    | 4.5 HW & Q |                               |
| 5/19 | Fri | 5.2: The Characteristic Equation               |            |                               |
| 5/20 | Sat | Weekend - No Class                             |            |                               |
| 5/21 | Sun | Weekend - No Class                             | 4.6 HW & Q | Slack 7 and Notes 7 (4.5-5.1) |
| 5/22 | Mon | 5.3: Diagonalization                           |            |                               |
| 5/23 | Tue | 5.4-6: Dynamical Systems                       | 5.1 HW & Q |                               |
| 5/24 | Wed | Catch-up and review day                        |            |                               |
| 5/25 | Thu | Assessment 7 (4.6-5.2), Discussion Seminar VII | 5.2 HW & Q |                               |
| 5/26 | Fri | 5.4-6: Dynamical Systems                       |            |                               |

# 11-12:05 pm (17-101)

## What to do to be ready for tomorrow

- Finish the 4.5 HW and Q early to be ready for the Assessment
- Assessment 6 on 4.2-5 is this week
  - o Three named theorems in these sections, Zero (?) named theorems in Chapters 5 and 6
  - o Identifying a basis: Need two of (a.) linear independence, (b.) span, (c.) the right number of vectors.
  - A basis for Col A vs the subspace Nul A
  - o Be able to go back and forth between standard coordinates and B-coordinates
    - Using parallelogram grids
  - o Isomorphisms between Pn and Rn ... or M2x2 and R4.
- Bring a printed a copy of Discussion 6 on "Own your Body's Data"
- Watch the 5.2 video in prep for Monday

| 5/17 | Wed | 5.1: Eigenvectors & Eigenvalues                |            |                               |
|------|-----|--|------------|-------------------------------|
| 5/18 | Thu | Assessment 6 (4.2-5), Discussion Seminar VI    | 4.5 HW & Q |                               |
| 5/19 | Fri | No class on Fridays                            |            |                               |
| 5/20 | Sat | Weekend - No Class                             |            |                               |
| 5/21 | Sun | Weekend - No Class                             | 4.6 HW & Q | Slack 7 and Notes 7 (4.5-5.1) |
| 5/22 | Mon | 5.2: The Characteristic Equation               |            |                               |
| 5/23 | Tue | 5.3: Diagonalization                           | 5.1 HW & Q |                               |
| 5/24 | Wed | 5.4-6: Dynamical Systems                       |            |                               |
| 5/25 | Thu | Assessment 7 (4.6-5.2), Discussion Seminar VII | 5.2 HW & Q |                               |

## Tuesday, May 16, 2023

# 10-10:50 am (17-101)

#### What to do to be ready for tomorrow

- Catch-up day tomorrow
- 4.4 HW and Q due tonight
- Finish the 4.5 HW and Q early to be ready for the Assessment
- Assessment 6 on 4.2-5 is this week
- Bring a <u>printed</u> a copy of Discussion 6 on "Own your Body's Data"
- Graduation
  - o I'm trying to talk to every student about graduation.
  - o Graduating is different than walking in the ceremony (both are good)
  - o I believe that most students are eligible to graduate

# What's up next calendar

| 5/16 | Tue | 5.1: Eigenvectors & Eigenvalues                | 4.4 HW & Q |                               |
|------|-----|--|------------|-------------------------------|
| 5/17 | Wed | Catch-up and review day                        |            |                               |
| 5/18 | Thu | Assessment 6 (4.2-5), Discussion Seminar VI    | 4.5 HW & Q |                               |
| 5/19 | Fri | 5.2: The Characteristic Equation               |            |                               |
| 5/20 | Sat | Weekend - No Class                             |            |                               |
| 5/21 | Sun | Weekend - No Class                             | 4.6 HW & Q | Slack 7 and Notes 7 (4.5-5.1) |
| 5/22 | Mon | 5.3: Diagonalization                           |            |                               |
| 5/23 | Tue | 5.4-6: Dynamical Systems                       | 5.1 HW & Q |                               |
| 5/24 | Wed | Catch-up and review day                        |            |                               |
| 5/25 | Thu | Assessment 7 (4.6-5.2), Discussion Seminar VII | 5.2 HW & Q |                               |
| 5/26 | Fri | 5.4-6: Dynamical Systems                       |            |                               |

## 11-12:05 pm (17-101)

## What to do to be ready for tomorrow

- Watch 5.1 video for tomorrow
- 4.4 HW and Q due tonight
- Finish the 4.5 HW and Q early to be ready for the Assessment
- Assessment 6 on 4.2-5 is this week
- Bring a <u>printed</u> a copy of Discussion 6 on "Own your Body's Data"
- Graduation
  - o I'm trying to talk to every student about graduation.
  - o Graduating is different than walking in the ceremony (both are good)
  - o I believe that most students are eligible to graduate

| 5/16 | Tue | 4.6: Change of Basis                           | 4.4 HW & Q |                               |
|------|-----|--|------------|-------------------------------|
| 5/17 | Wed | 5.1: Eigenvectors & Eigenvalues                |            |                               |
| 5/18 | Thu | Assessment 6 (4.2-5), Discussion Seminar VI    | 4.5 HW & Q |                               |
| 5/19 | Fri | No class on Fridays                            |            |                               |
| 5/20 | Sat | Weekend - No Class                             |            |                               |
| 5/21 | Sun | Weekend - No Class                             | 4.6 HW & Q | Slack 7 and Notes 7 (4.5-5.1) |
| 5/22 | Mon | 5.2: The Characteristic Equation               |            |                               |
| 5/23 | Tue | 5.3: Diagonalization                           | 5.1 HW & Q |                               |
| 5/24 | Wed | 5.4-6: Dynamical Systems                       |            |                               |
| 5/25 | Thu | Assessment 7 (4.6-5.2), Discussion Seminar VII | 5.2 HW & Q |                               |

# Monday, May 15, 2023

# 10-10:50 am (17-101)

## What to do to be ready for tomorrow

- Watch 5.1 video for tomorrow
- 4.4 HW and Q due Tuesday night
- Assessment 6 on 4.2-5 is this week
- Bring a <u>printed</u> a copy of Discussion 6 on "Own your Body's Data"
- Graduation
  - o I'm trying to talk to every student about graduation.
  - o Graduating is different than walking in the ceremony (both are good)
  - o I believe that most students are eligible to graduate

## What's up next calendar

| 5/15 | Mon | 4.6: Change of Basis                           |            |                               |
|------|-----|--|------------|-------------------------------|
| 5/16 | Tue | 5.1: Eigenvectors & Eigenvalues                | 4.4 HW & Q |                               |
| 5/17 | Wed | Catch-up and review day                        |            |                               |
| 5/18 | Thu | Assessment 6 (4.2-5), Discussion Seminar VI    | 4.5 HW & Q |                               |
| 5/19 | Fri | 5.2: The Characteristic Equation               |            |                               |
| 5/20 | Sat | Weekend - No Class                             |            |                               |
| 5/21 | Sun | Weekend - No Class                             | 4.6 HW & Q | Slack 7 and Notes 7 (4.5-5.1) |
| 5/22 | Mon | 5.3: Diagonalization                           |            |                               |
| 5/23 | Tue | 5.4-6: Dynamical Systems                       | 5.1 HW & Q |                               |
| 5/24 | Wed | Catch-up and review day                        |            |                               |
| 5/25 | Thu | Assessment 7 (4.6-5.2), Discussion Seminar VII | 5.2 HW & Q |                               |
| 5/26 | Fri | 5.4-6: Dynamical Systems                       |            |                               |

## 11-12:05 pm (17-101)

# What to do to be ready for tomorrow

- Watch 5.1 video for tomorrow
- 4.4 HW and Q due Tuesday night
- Assessment 6 on 4.2-5 is this week
- Bring a <u>printed</u> a copy of Discussion 6 on "Own your Body's Data"
- Graduation
  - o I'm trying to talk to every student about graduation.
  - o Graduating is different than walking in the ceremony (both are good)
  - o I believe that most students are eligible to graduate

| 5/15 Mon | 4.5: Dimension and Rank                        |            |                               |
|----------|--|------------|-------------------------------|
| 5/16 Tue | 4.6: Change of Basis                           | 4.4 HW & Q |                               |
| 5/17 Wed | 5.1: Eigenvectors & Eigenvalues                |            |                               |
| 5/18 Thu | Assessment 6 (4.2-5), Discussion Seminar VI    | 4.5 HW & Q |                               |
| 5/19 Fri | No class on Fridays                            |            |                               |
| 5/20 Sat | Weekend - No Class                             |            |                               |
| 5/21 Sun | Weekend - No Class                             | 4.6 HW & Q | Slack 7 and Notes 7 (4.5-5.1) |
| 5/22 Mon | 5.2: The Characteristic Equation               |            |                               |
| 5/23 Tue | 5.3: Diagonalization                           | 5.1 HW & Q |                               |
| 5/24 Wed | 5.4-6: Dynamical Systems                       |            |                               |
| 5/25 Thu | Assessment 7 (4.6-5.2), Discussion Seminar VII | 5.2 HW & Q |                               |

# Friday, May 12, 2023

# 10-10:50 am (17-101)

# What to do to be ready for tomorrow

- Watch the 4.6 video for Monday
- 4.3 HW and Q due Sunday night (along with Slack and the 4.3-4 notes)
- Graduation
  - o Have you applied?
  - Looking for students that will have 90 credits after this quarter but are not presently planning to graduate from Highline

| 5/12 | Fri | 4.5: Dimension and Rank                     |            |                             |
|------|-----|---|------------|-----------------------------|
| 5/13 |     | Weekend - No Class                          |            |                             |
| 5/14 | Sun | Weekend - No Class                          | 4.3 HW & Q | Slack 6 and Notes 6 (4.3-4) |
| 5/15 |     | 4.6: Change of Basis                        |            |                             |
| 5/16 | Tue | 5.1: Eigenvectors & Eigenvalues             | 4.4 HW & Q |                             |
| 5/17 | Wed | Catch-up and review day                     |            |                             |
| 5/18 | Thu | Assessment 6 (4.2-5), Discussion Seminar VI | 4.5 HW & Q |                             |

# Wednesday, May 10, 2023

# 10-10:50 am (17-101)

## What to do to be ready for tomorrow

- Finish the 4.5 video for Friday
- 4.3 HW and Q due Tuesday night
- Assessment 5 on 2.3, 3.1/2, and 4.1 is tomorrow
  - No calculator
  - o Memorize the Invertible Matrix Theorem, definition of a Subspace
  - Be able to find determinants by hand (anything bigger than 3x3 will have lots of zeros)
  - Be able to show that a space is/isn't a subspace
- Bring a printed a copy of Discussion 5 on the History of Linear Algebra to class tomorrow

## What's up next calendar

| 5/10 | Wed | Catch-up and review day                              |            |                             |
|------|-----|--|------------|-----------------------------|
| 5/11 | Thu | Assessment 5 (2.3, 3.1/2, 4.1), Discussion Seminar V |            |                             |
| 5/12 | Fri | 4.5: Dimension and Rank                              |            |                             |
| 5/13 | Sat | Weekend - No Class                                   |            |                             |
| 5/14 | Sun | Weekend - No Class                                   | 4.3 HW & Q | Slack 6 and Notes 6 (4.3-4) |
| 5/15 |     | 4.6: Change of Basis                                 |            |                             |
| 5/16 | Tue | 5.1: Eigenvectors & Eigenvalues                      | 4.4 HW & Q |                             |
| 5/17 | Wed | Catch-up and review day                              |            |                             |
| 5/18 | Thu | Assessment 6 (4.2-5), Discussion Seminar VI          | 4.5 HW & Q |                             |

# 11-12:05 pm (17-101)

## What to do to be ready for tomorrow

- Finish the 4.5 video for Monday
- 4.3 HW and Q due Tuesday night
- Assessment 5 on 2.3, 3.1/2, and 4.1 is tomorrow
  - No calculator
  - o Memorize the Invertible Matrix Theorem, definition of a Subspace
  - Be able to find determinants by hand (anything bigger than 3x3 will have lots of zeros)
  - Be able to show that a space is/isn't a subspace
- Bring a printed a copy of Discussion 5 on the History of Linear Algebra to class tomorrow

| 5/10 | Wed | Catch-up and review day                              |            |                             |
|------|-----|--|------------|-----------------------------|
| 5/11 | Thu | Assessment 5 (2.3, 3.1/2, 4.1), Discussion Seminar V |            |                             |
| 5/12 | Fri | No class on Fridays                                  |            |                             |
| 5/13 | Sat | Weekend - No Class                                   |            |                             |
| 5/14 | Sun | Weekend - No Class                                   | 4.3 HW & Q | Slack 6 and Notes 6 (4.3-4) |
| 5/15 | Mon | 4.5: Dimension and Rank                              |            |                             |
| 5/16 | Tue | 4.6: Change of Basis                                 | 4.4 HW & Q |                             |
| 5/17 | Wed | 5.1: Eigenvectors & Eigenvalues                      |            |                             |
| 5/18 | Thu | Assessment 6 (4.2-5), Discussion Seminar VI          | 4.5 HW & Q |                             |

# Monday, May 8, 2023

## 10-10:50 am (17-101)

# What to do to be ready for tomorrow

- Finish the 4.4 video (the second half on isomorphisms is a bit challenging)
- 4.2 HW and Q due Tuesday night
- Assessment 5 on 2.3, 3.1/2, and 4.1 on Thursday
- Discussion 5 on the History of Linear Algebra is due Thursday

# What's up next calendar

| 5/8  | Mon | 4.4: Coordinates                                     |            |                             |
|------|-----|--|------------|-----------------------------|
| 5/9  | Tue | 4.4: Coordinates                                     | 4.2 HW & Q |                             |
| 5/10 | Wed | Catch-up and review day                              |            |                             |
| 5/11 | Thu | Assessment 5 (2.3, 3.1/2, 4.1), Discussion Seminar V |            |                             |
| 5/12 | Fri | 4.5: Dimension and Rank                              |            |                             |
| 5/13 | Sat | Weekend - No Class                                   |            |                             |
| 5/14 | Sun | Weekend - No Class                                   | 4.3 HW & Q | Slack 6 and Notes 6 (4.3-4) |
| 5/15 | Mon | 4.6: Change of Basis                                 |            |                             |
| 5/16 | Tue | 5.1: Eigenvectors & Eigenvalues                      | 4.4 HW & Q |                             |
| 5/17 | Wed | Catch-up and review day                              |            |                             |
| 5/18 | Thu | Assessment 6 (4.2-5), Discussion Seminar VI          | 4.5 HW & Q |                             |

# 11-12:05 pm (17-101)

# What to do to be ready for tomorrow

- Finish the 4.4 video (the second half on isomorphisms is a bit challenging)
- 4.2 HW and Q due Tuesday night
- Assessment 5 on 2.3, 3.1/2, and 4.1 on Thursday
- Discussion 5 on the History of Linear Algebra is due Thursday

| 5/8  | Mon | 4.4: Coordinates                                     |            |                             |
|------|-----|--|------------|-----------------------------|
| 5/9  | Tue | 4.4: Coordinates                                     | 4.2 HW & Q |                             |
| 5/10 | Wed | Catch-up and review day                              |            |                             |
| 5/11 | Thu | Assessment 5 (2.3, 3.1/2, 4.1), Discussion Seminar V |            |                             |
| 5/12 | Fri | No class on Fridays                                  |            |                             |
| 5/13 | Sat | Weekend - No Class                                   |            |                             |
| 5/14 | Sun | Weekend - No Class                                   | 4.3 HW & Q | Slack 6 and Notes 6 (4.3-4) |
| 5/15 | Mon | 4.5: Dimension and Rank                              |            |                             |
| 5/16 | Tue | 4.6: Change of Basis                                 | 4.4 HW & Q |                             |
| 5/17 | Wed | 5.1: Eigenvectors & Eigenvalues                      |            |                             |
| 5/18 | Thu | Assessment 6 (4.2-5), Discussion Seminar VI          | 4.5 HW & Q |                             |

# Wednesday, May 3, 2023

# 10-10:50 am (17-101)

# What to do to be ready for tomorrow

- No video for tomorrow
- Tomorrow I will lecture through 4.3 (video watching is optional)
- No Assessment and no discussion seminar on Thursday
- Watch the 4.4 video in prep for Monday

# What's up next calendar

| 5/3  | Wed | Catch-up and review day                              |              |                             |
|------|-----|--|--------------|-----------------------------|
| 5/4  | Thu | 4.3: Linearly Independent Sets; Bases                | 3.1-2 HW & Q |                             |
| 5/5  | Fri | No class - Math Conference                           |              |                             |
| 5/6  | Sat | Weekend - No Class                                   |              |                             |
| 5/7  | Sun | Weekend - No Class                                   | 4.1 HW & Q   | Slack 5 and Notes 5 (4.1-2) |
| 5/8  | Mon | 4.4: Coordinates                                     |              |                             |
| 5/9  | Tue | 4.4: Coordinates                                     | 4.2 HW & Q   |                             |
| 5/10 | Wed | Catch-up and review day                              |              |                             |
| 5/11 | Thu | Assessment 5 (2.3, 3.1/2, 4.1), Discussion Seminar V |              |                             |
| 5/12 | Fri | 4.5: Dimension and Rank                              |              |                             |

# 11-12:05 pm (17-101)

# What to do to be ready for tomorrow

- No video for tomorrow
- Tomorrow I will lecture through 4.3 (video watching is optional)
- No Assessment and no discussion seminar on Thursday
- Watch the 4.4 video in prep for Monday

| 5/3  | Wed | 4.2: Null Spaces, Column Spaces, and Linear Transformations |              |                             |
|------|-----|---|--------------|-----------------------------|
| 5/4  | Thu | 4.3: Linearly Independent Sets; Bases                       | 3.1-2 HW & Q |                             |
| 5/5  | Fri | No class on Fridays   |              |                             |
| 5/6  | Sat | Weekend - No Class  |              |                             |
| 5/7  | Sun | Weekend - No Class  | 4.1 HW & Q   | Slack 5 and Notes 5 (4.1-2) |
| 5/8  | Mon | 4.4: Coordinates  |              |                             |
| 5/9  | Tue | 4.4: Coordinates  | 4.2 HW & Q   |                             |
| 5/10 | Wed | Catch-up and review day                                     |              |                             |
| 5/11 | Thu | Assessment 5 (2.3, 3.1/2, 4.1), Discussion Seminar V        |              |                             |

# Tuesday, May 2

# 10-10:50 am (17-101)

## What to do to be ready for tomorrow

- No video for tomorrow
- Tomorrow (Wednesday) is a catch-up day. Please come prepared with questions.
- No Assessment and no discussion seminar on Thursday
- On Thursday, I will lecture through 4.3 (video watching is optional)

# What's up next calendar

|      | I   |   |              |                             |
|------|-----|---|--------------|-----------------------------|
| 5/1  | Mon | 4.1: Vector Spaces and Subspaces                            |              |                             |
| 5/2  | Tue | 4.2: Null Spaces, Column Spaces, and Linear Transformations |              |                             |
| 5/3  | Wed | Catch-up and review day                                     |              |                             |
| 5/4  | Thu | 4.3: Linearly Independent Sets; Bases                       | 3.1-2 HW & Q |                             |
| 5/5  | Fri | No class - Math Conference                                  |              |                             |
| 5/6  | Sat | Weekend - No Class  |              |                             |
| 5/7  | Sun | Weekend - No Class  | 4.1 HW & Q   | Slack 5 and Notes 5 (4.1-2) |
| 5/8  | Mon | 4.4: Coordinates  |              |                             |
| 5/9  | Tue | 4.4: Coordinates  | 4.2 HW & Q   |                             |
| 5/10 | Wed | Catch-up and review day                                     |              |                             |
| 5/11 | Thu | Assessment 5 (4.1-2), Discussion Seminar V                  |              |                             |
| 5/12 | Fri | 4.5: Dimension and Rank                                     |              |                             |

# 11-12:05 pm (17-101)

# What to do to be ready for tomorrow

- 4.2 video for tomorrow
- Tomorrow (Wednesday) is a catch-up day at 10 am. Please come prepared with questions.
- No Assessment and no discussion seminar on Thursday
- On Thursday, I will lecture through 4.3 (video watching is optional)

| 5/1  | Mon | 4.1: Vector Spaces and Subspaces                            |              |                             |
|------|-----|---|--------------|-----------------------------|
| 5/2  | Tue | 4.1: Vector Spaces and Subspaces                            |              |                             |
| 5/3  | Wed | 4.2: Null Spaces, Column Spaces, and Linear Transformations |              |                             |
| 5/4  | Thu | 4.3: Linearly Independent Sets; Bases                       | 3.1-2 HW & Q |                             |
| 5/5  | Fri | No class on Fridays   |              |                             |
| 5/6  | Sat | Weekend - No Class  |              |                             |
| 5/7  | Sun | Weekend - No Class  | 4.1 HW & Q   | Slack 5 and Notes 5 (4.1-2) |
| 5/8  | Mon | 4.4: Coordinates  |              |                             |
| 5/9  | Tue | 4.4: Coordinates  | 4.2 HW & Q   |                             |
| 5/10 |     |   |              |                             |
| 5/11 | Thu | Assessment 5 (4.1-2), Discussion Seminar V                  |              |                             |

## Wednesday, April 26, 2023

## 10-10:50 am (17-101)

#### What to do to be ready for tomorrow

- No video for tomorrow
- Note: There was an issue with the 3.1/2 video. The links now jump part way into the videos ... this is correct.
- Please watch the 4.1 video in prep for Friday
- 2.2 HW and Q due tomorrow night, but highly recommended before the Assessment tomorrow.
- Assessment notes
  - There are three proofs covered in the videos (two in 1.9 and one in 2.2)
  - Key terms: one-to-one, onto, transpose, commutative property of multiplication, what is the short cut formula for finding the inverse of a 2x2 matrix? And does this formula work for matrices with other dimensions?
  - How to show work: Write down the matrices as you would enter them in the calculator and then give the answer. In particular, write out [A | I] when looking for the inverse.
  - o Make sure you can find the matrix of a linear transformation.
- Next week: No Assessment IV. Instead, would you like a catch-up day or for me to lecture a section (and save you a video)?

## What's up next calendar

| 4/24 | Mon | 2.3: Characteristics of Invertible Matrices    |            |                               |
|------|-----|--|------------|-------------------------------|
| 4/25 | Tue | 3.1 & 3.2: Determinants                        | 2.1 HW & Q |                               |
| 4/26 | Wed | Catch-up and review day                        |            |                               |
| 4/27 | Thu | Assessment 3 (1.9-2.2), Discussion Seminar III | 2.2 HW & Q |                               |
| 4/28 | Fri | 4.1: Vector Spaces and Subspaces               |            |                               |
| 4/29 | Sat | Weekend - No Class                             |            |                               |
| 4/30 | Sun | Weekend - No Class                             | 2.3 HW & Q | Slack 4 and Notes 4 (2.2-3.2) |

#### 11-12:05 pm (17-101)

# What to do to be ready for tomorrow

- No video for tomorrow
- Note: There was an issue with the 3.1/2 video. The links now jump part way into the videos ... this is correct.
- Please watch the 4.1 video in prep for Monday
- 2.2 HW and Q due tomorrow night, but highly recommended before the Assessment tomorrow.
- Assessment notes
  - There are three proofs covered in the videos (two in 1.9 and one in 2.2)

- Key terms: one-to-one, onto, transpose, commutative property of multiplication, what is the short cut formula for finding the inverse of a 2x2 matrix? And does this formula work for matrices with other dimensions?
- O How to show work: Write down the matrices as you would enter them in the calculator and then give the answer. In particular, write out [A | I] when looking for the inverse.
- o Make sure you can find the matrix of a linear transformation.
- Next week: No Assessment IV. Instead, I'm thinking about lecturing a day to save you a video.

## What's up next calendar

None

# Tuesday, April 25, 2023

# 10-10:50 am (17-101)

# What to do to be ready for tomorrow

- No video for tomorrow
- 2.1 HW and Q due Tuesday
- Prepare questions for the catch-up day tomorrow.

## What's up next calendar

| 4/24 | Mon | 2.3: Characteristics of Invertible Matrices    |            |                               |
|------|-----|--|------------|-------------------------------|
| 4/25 | Tue | 3.1 & 3.2: Determinants                        | 2.1 HW & Q |                               |
| 4/26 | Wed | Catch-up and review day                        |            |                               |
| 4/27 | Thu | Assessment 3 (1.9-2.2), Discussion Seminar III | 2.2 HW & Q |                               |
| 4/28 | Fri | 4.1: Vector Spaces and Subspaces               |            |                               |
| 4/29 | Sat | Weekend - No Class                             |            |                               |
| 4/30 | Sun | Weekend - No Class                             | 2.3 HW & Q | Slack 4 and Notes 4 (2.2-3.2) |

# 11-12:05 pm (17-101)

# What to do to be ready for tomorrow

- Watch the 3.1/2 video
- 2.1 HW and Q due today
- Catch-up lesson at 10 am tomorrow if you are interested and available.

| 4/24 | Mon | 2.2: Inverse of a Matrix                       |            |                               |
|------|-----|--|------------|-------------------------------|
| 4/25 | Tue | 2.3: Characteristics of Invertible Matrices    | 2.1 HW & Q |                               |
| 4/26 | Wed | 3.1 & 3.2: Determinants                        |            |                               |
| 4/27 | Thu | Assessment 3 (1.9-2.2), Discussion Seminar III | 2.2 HW & Q |                               |
| 4/28 | Fri | No class on Fridays                            |            |                               |
| 4/29 | Sat | Weekend - No Class                             |            |                               |
| 4/30 | Sun | Weekend - No Class                             | 2.3 HW & Q | Slack 4 and Notes 4 (2.2-3.2) |

# Monday, April 24, 2023

# 10-10:50 am (17-101)

# What to do to be ready for tomorrow

- Watch the 3.1/2 video in prep for Monday
- 2.1 HW and Q due Tuesday

## What's up next calendar

| 4/24 | Mon | 2.3: Characteristics of Invertible Matrices    |            |                               |
|------|-----|--|------------|-------------------------------|
| 4/25 | Tue | 3.1 & 3.2: Determinants                        | 2.1 HW & Q |                               |
| 4/26 | Wed | Catch-up and review day                        |            |                               |
| 4/27 | Thu | Assessment 3 (1.9-2.2), Discussion Seminar III | 2.2 HW & Q |                               |
| 4/28 | Fri | 4.1: Vector Spaces and Subspaces               |            |                               |
| 4/29 | Sat | Weekend - No Class                             |            |                               |
| 4/30 | Sun | Weekend - No Class                             | 2.3 HW & Q | Slack 4 and Notes 4 (2.2-3.2) |

# 11-12:05 pm (17-101)

# What to do to be ready for tomorrow

- Watch the 2.3 video in prep for Tuesday
- 2.1 HW and Q due Tuesday
- After today, you will have seen all the material that will be on the next Assessment

| 4/24 Mon | 2.2: Inverse of a Matrix                       |            |                               |
|----------|--|------------|-------------------------------|
| 4/25 Tue | 2.3: Characteristics of Invertible Matrices    | 2.1 HW & Q |                               |
| 4/26 Wed | 3.1 & 3.2: Determinants                        |            |                               |
| 4/27 Thu | Assessment 3 (1.9-2.2), Discussion Seminar III | 2.2 HW & Q |                               |
| 4/28 Fri | No class on Fridays                            |            |                               |
| 4/29 Sat | Weekend - No Class                             |            |                               |
| 4/30 Sun | Weekend - No Class                             | 2.3 HW & Q | Slack 4 and Notes 4 (2.2-3.2) |

# Friday, April 21, 2023

# 10-10:50 am (17-101)

# What to do to be ready for Monday

- Watch the 2.3 video in prep for Monday
- 1.9 HW and Q due Sunday
- Slack 3 and Notes 3 (1.8-2.1) due on Sunday
- After today, you will have seen all the material that will be on the next Assessment

# What's up next calendar

| 4/21 | Fri | 2.2: Inverse of a Matrix                       |            |                               |
|------|-----|--|------------|-------------------------------|
| 4/22 | Sat | Weekend - No Class                             |            |                               |
| 4/23 | Sun | Weekend - No Class                             | 1.9 HW & Q | Slack 3 and Notes 3 (1.8-2.1) |
| 4/24 | Mon | 2.3: Characteristics of Invertible Matrices    |            |                               |
| 4/25 | Tue | 3.1 & 3.2: Determinants                        | 2.1 HW & Q |                               |
| 4/26 | Wed | Catch-up and review day                        |            |                               |
| 4/27 | Thu | Assessment 3 (1.9-2.2), Discussion Seminar III | 2.2 HW & Q |                               |
| 4/28 | Fri | 4.1: Vector Spaces and Subspaces               |            |                               |

# 11-12:05 pm (17-101)

No class

## Wednesday, April 19, 2023

# 10-10:50 am (17-101)

<u>Correction from 1.9</u>: True or false, a mapping  $T: \mathbb{R}^n \to \mathbb{R}^m$  is one-to-one if each vector in  $\mathbb{R}^n$  maps onto a unique vector in  $\mathbb{R}^m$ .

This is false. Every function maps its inputs onto unique outputs ... this is the definition of a function.

## What to do to be ready for Thursday

- Assessment 2 on 1.5-8 tomorrow.
- No video tonight!
- 1.8 HW and Q due Thursday, but it would be wise to complete them before the Assessment.
- Key vocab words for Assessment 2: Homogeneous equation, Trivial solution, Non-trivial solution to the homogeneous equation, Linearly independent, Linearly dependent, What is the connection between linear dependence/independence and the homogeneous equation? Standard basis vectors:  $\vec{e}_1$ ,  $\vec{e}_2$ , ..., and Definition of a Linear Transformation
- Solutions or hints to T/F posted on my website
- You are responsible for the proofs in the notes and/or covered in class

#### What's up next calendar

| 4/19 Wed Catch-up and review day                     |                  |                           |
|--|------------------|---------------------------|
| 4/20 Thu Assessment 2 (1.5-8), Discussion Seminar II | 1.8 HW & Q       |                           |
| 4/21 Fri 2.2: Inverse of a Matrix                    |                  |                           |
| 4/22 Sat Weekend - No Class                          |                  |                           |
| 4/23 Sun Weekend - No Class                          | 1.9 HW & Q Slack | k 3 and Notes 3 (1.8-2.1) |

#### 11-12:05 pm (17-101)

Correction from 1.9: True or false, a mapping  $T: \mathbb{R}^n \to \mathbb{R}^m$  is one-to-one if each vector in  $\mathbb{R}^n$  maps onto a unique vector in  $\mathbb{R}^m$ .

This is false. Every function maps its inputs onto unique outputs ... this is the definition of a function.

#### What to do to be ready for Thursday

- Assessment 2 on 1.5-8 tomorrow.
- No video tonight!
- 1.8 HW and Q due Thursday, but it would be wise to complete them before the Assessment.
- Key vocab words for Assessment 2: Homogeneous equation, Trivial solution, Non-trivial solution to the homogeneous equation, Linearly independent, Linearly dependent, What is the connection between linear dependence/independence and the homogeneous equation? Standard basis vectors:  $\vec{e}_1$ ,  $\vec{e}_2$ , ..., and Definition of a Linear Transformation
- Solutions or hints to T/F posted on my website
- You are responsible for the proofs in the notes and/or covered in class

| 4/19 | Wed | 2.1: Matrix Operations                      |            |                               |
|------|-----|---|------------|-------------------------------|
| 4/20 | Thu | Assessment 2 (1.5-8), Discussion Seminar II | 1.8 HW & Q |                               |
| 4/21 | Fri | No class on Fridays                         |            |                               |
| 4/22 | Sat | Weekend - No Class                          |            |                               |
| 4/23 | Sun | Weekend - No Class                          | 1.9 HW & Q | Slack 3 and Notes 3 (1.8-2.1) |

## Tuesday, April 18, 2023

## 10-10:50 am (17-101)

#### What to do to be ready for Wednesday

- No video tonight! Come with question for the catch-up day tomorrow.
- 1.7 HW and Q due tonight.
- Key vocab words for Assessment 2: Homogeneous equation, Trivial solution, Non-trivial solution to the homogeneous equation, Linearly independent, Linearly dependent, What is the connection between linear dependence/independence and the homogeneous equation? Standard basis vectors:  $\vec{e}_1$ ,  $\vec{e}_2$ , ..., and Definition of a Linear Transformation
- Solutions or hints to T/F posted on my website

#### What's up next calendar

| 4/17 | Mon | 1.9: Matrix of a Linear Transformation      | 1.6HW      |                               |
|------|-----|---|------------|-------------------------------|
| 4/18 | Tue | 2.1: Matrix Operations                      | 1.7 HW & Q |                               |
| 4/19 | Wed | Catch-up and review day                     |            |                               |
| 4/20 | Thu | Assessment 2 (1.5-8), Discussion Seminar II | 1.8 HW & Q |                               |
| 4/21 | Fri | 2.2: Inverse of a Matrix                    |            |                               |
| 4/22 | Sat | Weekend - No Class                          |            |                               |
| 4/23 | Sun | Weekend - No Class                          | 1.9 HW & Q | Slack 3 and Notes 3 (1.8-2.1) |

## 11-12:05 pm (17-101)

#### What to do to be ready for Wednesday

- Watch the 2.1 video.
- 1.7 HW and Q due tonight.
- Catch-up day tomorrow from 10-10:50 tomorrow in 17-101 if you are interested and available.
- Key vocab words for Assessment 2: Homogeneous equation, Trivial solution, Non-trivial solution to the homogeneous equation, Linearly independent, Linearly dependent, What is the connection between linear dependence/independence and the homogeneous equation? Standard basis vectors:  $\vec{e}_1$ ,  $\vec{e}_2$ , ..., and Definition of a Linear Transformation
- Solutions or hints to T/F posted on my website

| 4/17 Mon | 1.8: Linear Transformations                 | 1.6HW      |                               |
|----------|---|------------|-------------------------------|
| 4/18 Tue | 1.9: Matrix of a Linear Transformation      | 1.7 HW & Q |                               |
| 4/19 Wed | 2.1: Matrix Operations                      |            |                               |
| 4/20 Thu | Assessment 2 (1.5-8), Discussion Seminar II | 1.8 HW & Q |                               |
| 4/21 Fri | No class on Fridays                         |            |                               |
| 4/22 Sat | Weekend - No Class                          |            |                               |
| 4/23 Sun | Weekend - No Class                          | 1.9 HW & Q | Slack 3 and Notes 3 (1.8-2.1) |

# Monday, April 17, 2023

# 10-10:50 am (17-101)

## What to do to be ready for Monday

- Watch the 2.1 video (possibly not re-edited).
- 1.6 HW (no quiz) due tonight.
- 1.7 HW and Q due tomorrow night.
- Note that there are more HW's due this week.
- Note: The end of chapter 1 is challenging, then things will lighten up for a few sections before getting serious again in chapter 4.
- Reminder: In order to drop an Assessment score, you need to attend 60% of the days I take attendance.

## What's up next calendar

| 4/17 | Mon | 1.9: Matrix of a Linear Transformation      | 1.6HW      |                               |
|------|-----|---|------------|-------------------------------|
| 4/18 | Tue | 2.1: Matrix Operations                      | 1.7 HW & Q |                               |
| 4/19 | Wed | Catch-up and review day                     |            |                               |
| 4/20 | Thu | Assessment 2 (1.5-8), Discussion Seminar II | 1.8 HW & Q |                               |
| 4/21 | Fri | 2.2: Inverse of a Matrix                    |            |                               |
| 4/22 | Sat | Weekend - No Class                          |            |                               |
| 4/23 | Sun | Weekend - No Class                          | 1.9 HW & Q | Slack 3 and Notes 3 (1.8-2.1) |

## 11-12:05 pm (17-101)

## What to do to be ready for Tuesday

- Watch the 1.9 video (longer video)
- 1.6 HW (no quiz) due tonight.
- 1.7 HW and Q due tomorrow night.
- Note that there are more HW's due this week.
- Note: The end of chapter 1 is challenging, then things will lighten up for a few sections before getting serious again in chapter 4.
- Reminder: In order to drop an Assessment score, you need to attend 60% of the days I take attendance.

| 4/17 | Mon | 1.8: Linear Transformations                 | 1.6HW      |                               |
|------|-----|---|------------|-------------------------------|
| 4/18 | Tue | 1.9: Matrix of a Linear Transformation      | 1.7 HW & Q |                               |
| 4/19 | Wed | 2.1: Matrix Operations                      |            |                               |
| 4/20 | Thu | Assessment 2 (1.5-8), Discussion Seminar II | 1.8 HW & Q |                               |
| 4/21 | Fri | No class on Fridays                         |            |                               |
| 4/22 | Sat | Weekend - No Class                          |            |                               |
| 4/23 | Sun | Weekend - No Class                          | 1.9 HW & Q | Slack 3 and Notes 3 (1.8-2.1) |

# Friday, April 14, 2023

# 10-10:50 am (17-101)

# What to do to be ready for Monday

- Complete 1.5 HW and Quiz in MyLabs by Sunday night.
- Slack 2 and Notes 2 are due on Sunday night.
- Watch the 1.9 video (longer video)
- Note that there are more HW's due next week.
- Note: The end of chapter 1 is challenging, then things will lighten up for a few sections before getting serious again in chapter 4.

# What's up next calendar

| 4/14 | Fri | 1.8: Linear Transformations                 |            |                             |
|------|-----|---|------------|-----------------------------|
| 4/15 | Sat | Weekend - No Class                          |            |                             |
| 4/16 | Sun | Weekend - No Class                          | 1.5 HW & Q | Slack 2 and Notes 2 (1.4-7) |
| 4/17 | Mon | 1.9: Matrix of a Linear Transformation      | 1.6HW      |                             |
| 4/18 | Tue | 2.1: Matrix Operations                      | 1.7 HW & Q |                             |
| 4/19 | Wed | Catch-up and review day                     |            |                             |
| 4/20 | Thu | Assessment 2 (1.5-8), Discussion Seminar II | 1.8 HW & Q |                             |
| 4/21 | Fri | 2.2: Inverse of a Matrix                    |            |                             |

# 11-12:05 pm (17-101)

No class

## Wednesday, April 12, 2023

# 10-10:50 am (17-101)

#### What to do to be ready for tomorrow

- Complete 1.4 HW and Quiz in MyLabs as part of studying. No video for tomorrow!
- Complete your Discussion Seminar 1 assignment and bring a <u>printed copy</u> to class tomorrow.
- About Thursday
  - No calculator section (show row reduction steps)
  - A few T/F questions based upon what we have done in class.
  - o Proofs covered in the notes so far: Vector and matrix properties
  - Skills: row reduction, interpreting a row reduced matrix as the solution of a system of linear equations (including with free variables), vector and matrix presentations, coefficient vs. augmented matrices
  - Pro-tip: Look at the assessments I gave last quarter to better understand the style/structure of what you will be taking (expect 3ish pages). Warm-ups

## What's up next calendar

| 4/5  | Wed | 1.2: Row Reduction and Echelon Form        |            |                             |
|------|-----|--|------------|-----------------------------|
| 4/6  | Thu | 1.3: Vector Equations                      | 1.1 HW & Q | <- HW = MyLabs homework     |
| 4/7  | Fri | 1.4: The Matrix Equation Ax=b              |            | and Q = MyLabs quiz         |
| 4/8  | Sat | Weekend - No Class                         |            |                             |
| 4/9  | Sun | Weekend - No Class                         | 1.2 HW & Q | Slack 1 and Notes 1 (1.1-3) |
| 4/10 | Mon | 1.5: Solution Sets of Linear Systems       |            |                             |
| 4/11 | Tue | 1.7: Linear Independence                   | 1.3 HW & Q |                             |
| 4/12 | Wed | Catch-up and review day                    |            |                             |
| 4/13 | Thu | Assessment 1 (1.1-4), Discussion Seminar I | 1.4 HW & Q |                             |
| 4/14 | Fri | 1.8: Linear Transformations                |            |                             |

#### 11-12:05 pm (17-101)

## What to do to be ready for tomorrow

- Complete 1.4 HW and Quiz in MyLabs as part of studying. No video for tomorrow!
- Complete your Discussion Seminar 1 assignment and bring a printed copy to class tomorrow.
- About Thursday
  - No calculator section (show row reduction steps)
  - A few T/F questions based upon what we have done in class.
  - Proofs covered in the notes so far: Vector and matrix properties
  - Skills: row reduction, interpreting a row reduced matrix as the solution of a system of linear equations (including with free variables), vector and matrix presentations, coefficient vs. augmented matrices
  - Pro-tip: Look at the assessments I gave last quarter to better understand the style/structure of what you will be taking (expect 3ish pages). Warm-ups

| 4/12 |     | 1.7: Linear Independence                    |            |                             |
|------|-----|---|------------|-----------------------------|
| 4/13 | Thu | Assessment 1 (1.1-4), Discussion Seminar I  | 1.4 HW & Q |                             |
| 4/14 | Fri | No class on Fridays                         |            |                             |
| 4/15 | Sat | Weekend - No Class                          |            |                             |
| 4/16 | Sun | Weekend - No Class                          | 1.5 HW & Q | Slack 2 and Notes 2 (1.4-7) |
| 4/17 | Mon | 1.8: Linear Transformations                 | 1.6HW      |                             |
| 4/18 |     | 1.9: Matrix of a Linear Transformation      | 1.7 HW & Q |                             |
| 4/19 | Wed | 2.1: Matrix Operations                      |            |                             |
| 4/20 | Thu | Assessment 2 (1.5-8), Discussion Seminar II | 1.8 HW & Q |                             |

## Tuesday, April 11

## 10-10:50 am (17-101)

## What to do to be ready for tomorrow

- 1.3 HW and Quiz in MyLabs are tonight about midnight
- No video for tomorrow!
- Tomorrow is our first catch-up day. Please be preparing questions that you would like to discuss.
- About Thursday
  - No calculator section (show row reduction steps)
  - o A few T/F questions based upon what we have done in class.
  - o Proofs covered in the notes so far: Vector and matrix properties
  - Skills: row reduction, interpreting a row reduced matrix as the solution of a system of linear equations (including with free variables), vector and matrix presentations, coefficient vs. augmented matrices

#### What's up next calendar

| 4/10 | Mon | 1.5: Solution Sets of Linear Systems       |            |                             |
|------|-----|--|------------|-----------------------------|
| 4/11 | Tue | 1.7: Linear Independence                   | 1.3 HW & Q |                             |
| 4/12 | Wed | Catch-up and review day                    |            |                             |
| 4/13 | Thu | Assessment 1 (1.1-4), Discussion Seminar I | 1.4 HW & Q |                             |
| 4/14 | Fri | 1.8: Linear Transformations                |            |                             |
| 4/15 | Sat | Weekend - No Class                         |            |                             |
| 4/16 | Sun | Weekend - No Class                         | 1.5 HW & Q | Slack 2 and Notes 2 (1.4-7) |

# 11-12:05 pm (17-101)

## What to do to be ready for tomorrow

- 1.3 HW and Quiz in MyLabs are tonight about midnight
- Watch and take notes on the 1.7 video
- Optional: Tomorrow is our first catch-up day at 10 am in 17-101. You are welcome to come and bring questions that you would like to discuss.
- About Thursday
  - No calculator section (show row reduction steps)
  - o A few T/F questions based upon what we have done in class.
  - o Proofs covered in the notes so far: Vector and matrix properties

 Skills: row reduction, interpreting a row reduced matrix as the solution of a system of linear equations (including with free variables), vector and matrix presentations, coefficient vs. augmented matrices

#### What's up next calendar

| 4/10 | Mon | 1.4: The Matrix Equation Ax=b              |            |                             |
|------|-----|--|------------|-----------------------------|
| 4/11 | Tue | 1.5: Solution Sets of Linear Systems       | 1.3 HW & Q |                             |
| 4/12 | Wed | 1.7: Linear Independence                   |            |                             |
| 4/13 | Thu | Assessment 1 (1.1-4), Discussion Seminar I | 1.4 HW & Q |                             |
| 4/14 | Fri | No class on Fridays                        |            |                             |
| 4/15 | Sat | Weekend - No Class                         |            |                             |
| 4/16 | Sun | Weekend - No Class                         | 1.5 HW & Q | Slack 2 and Notes 2 (1.4-7) |

## Monday, April 10

#### 10-10:50 am (17-101)

## What to do to be ready for tomorrow

- 1.3 HW and Quiz in MyLabs are due Tuesday about midnight
- Watch and take notes on the 1.7 video
  - Section 1.6 is about applications. We covered a chemistry example in 1.5 and will take on a network flow question as part of 1.7.
- On Wednesday we will have our first catch-up day. Please be preparing questions that you would like to discuss.
- Pro-tips
  - The proofs we have worked thus far haven "proofs of equality" and have all involved:
    - Defining the variables you are working with arbitrarily
    - A string of equivalences (similar to a proof of a trig identity)
  - In 1.7 you will see four proofs. Two are if and only if (iff) proofs recognizable by their use of arrows pointing two directions. Two are if-then proofs.
  - o Put on your thinking cap (3).

# What's up next calendar

| 4/10 | Mon | 1.5: Solution Sets of Linear Systems       |            |                             |
|------|-----|--|------------|-----------------------------|
| 4/11 | Tue | 1.7: Linear Independence                   | 1.3 HW & Q |                             |
| 4/12 | Wed | Catch-up and review day                    |            |                             |
| 4/13 | Thu | Assessment 1 (1.1-4), Discussion Seminar I | 1.4 HW & Q |                             |
| 4/14 | Fri | 1.8: Linear Transformations                |            |                             |
| 4/15 | Sat | Weekend - No Class                         |            |                             |
| 4/16 | Sun | Weekend - No Class                         | 1.5 HW & Q | Slack 2 and Notes 2 (1.4-7) |

# 11-12:05 pm (17-101)

#### What to do to be ready for tomorrow

- 1.3 HW and Quiz in MyLabs are due Tuesday about midnight
- Watch and take notes on the 1.5 video
- Pro-tips
  - After today, you have seen all the material that will be on Assessment 1. Make sure you can solve/answer all the questions from class.

| 4/10 Mon | 1.4: The Matrix Equation Ax=b              |            |                             |
|----------|--|------------|-----------------------------|
| 4/11 Tue | 1.5: Solution Sets of Linear Systems       | 1.3 HW & Q |                             |
| 4/12 Wed | 1.7: Linear Independence                   |            |                             |
| 4/13 Thu | Assessment 1 (1.1-4), Discussion Seminar I | 1.4 HW & Q |                             |
| 4/14 Fri | No class on Fridays                        |            |                             |
| 4/15 Sat | Weekend - No Class                         |            |                             |
| 4/16 Sun | Weekend - No Class                         | 1.5 HW & Q | Slack 2 and Notes 2 (1.4-7) |

# Friday, April 7, 2023

# 10-10:50 am (17-206 ← last day)

## What to do to be ready for Monday

- 1.2 HW and Quiz in MyLabs are due Sunday about midnight
- Slack Assignment 1 is due (in Gradescope) on Sunday
- Notes (1.1-3) is due (in Gradescope) on Sunday
- Watch and take notes on the 1.5 video
- Pro-tips
  - After today, you have seen all the material that will be on Assessment 1. Make sure you can solve/answer all the questions from class.
  - o If you want to see 1.4 (again), come to the 11 am class on Monday
- Room Change
  - O Starting Monday we will be in 17-101

## What's up next calendar

| 4/6  | Thu | 1.3: Vector Equations                      | 1.1 HW & Q | <- HW = MyLabs homework     |
|------|-----|--|------------|-----------------------------|
| 4/7  | Fri | 1.4: The Matrix Equation Ax=b              |            | and Q = MyLabs quiz         |
| 4/8  | Sat | Weekend - No Class                         |            |                             |
| 4/9  | Sun | Weekend - No Class                         | 1.2 HW & Q | Slack 1 and Notes 1 (1.1-3) |
| 4/10 | Mon | 1.5: Solution Sets of Linear Systems       |            |                             |
| 4/11 | Tue | 1.7: Linear Independence                   | 1.3 HW & Q |                             |
| 4/12 | Wed | Catch-up and review day                    |            |                             |
| 4/13 | Thu | Assessment 1 (1.1-4), Discussion Seminar I | 1.4 HW & Q |                             |
|      |     |  |            |                             |

# 11-12:05 pm (17-101)

# What to do to be ready for **Monday**

No class today

# Thursday, April 6, 2023

# 10-10:50 am (17-206)

## What to do to be ready for tomorrow

- 1.1 HW and Quiz in MyLabs are due tonight about midnight
- Watch and take notes on the 1.4 video
- Question: Does anyone need help getting into Canvas, MyLabs, Gradescope, or Slack?
- Question: Do you know the rough order/pattern for row reduction? Do you know how to check your results?
- Pro-tips
  - o Warm-ups
  - o If you want to see 1.4 on Monday (instead of Friday), come to the 11 am class
- Room Change
  - Starting <u>Monday</u> we will be in 17-101

#### What's up next calendar

| 4/6  | Thu | 1.3: Vector Equations                      | 1.1 HW & Q | <- HW = MyLabs homework     |
|------|-----|--|------------|-----------------------------|
| 4/7  | Fri | 1.4: The Matrix Equation Ax=b              |            | and Q = MyLabs quiz         |
| 4/8  | Sat | Weekend - No Class                         |            |                             |
| 4/9  | Sun | Weekend - No Class                         | 1.2 HW & Q | Slack 1 and Notes 1 (1.1-3) |
| 4/10 | Mon | 1.5: Solution Sets of Linear Systems       |            |                             |
| 4/11 | Tue | 1.7: Linear Independence                   | 1.3 HW & Q |                             |
| 4/12 | Wed | Catch-up and review day                    |            |                             |
| 4/13 | Thu | Assessment 1 (1.1-4), Discussion Seminar I | 1.4 HW & Q |                             |
|      |     |  |            |                             |

# 11-12:05 pm (17-101)

# What to do to be ready for Monday

- 1.1 HW and Quiz in MyLabs are due tonight about midnight
- Watch and take notes on the 1.4 video
- Question: Does anyone need help getting into Canvas, MyLabs, Gradescope, or Slack?
- Question: Do you know the rough order/pattern for row reduction? Do you know how to check your results?
- Pro-tips
  - Warm-ups
  - o If you want to see 1.4 on Friday (instead of Monday), come to the 10 am class

| 4/6  | Thu | 1.3: Vector Equations                      | 1.1 HW & Q | <- HW = MyLabs homework     |
|------|-----|--|------------|-----------------------------|
| 4/7  | Fri | No class on Fridays                        |            | and Q = MyLabs quiz         |
| 4/8  | Sat | Weekend - No Class                         |            |                             |
| 4/9  | Sun | Weekend - No Class                         | 1.2 HW & Q | Slack 1 and Notes 1 (1.1-3) |
| 4/10 | Mon | 1.4: The Matrix Equation Ax=b              |            |                             |
| 4/11 | Tue | 1.5: Solution Sets of Linear Systems       | 1.3 HW & Q |                             |
| 4/12 | Wed | 1.7: Linear Independence                   |            |                             |
| 4/13 | Thu | Assessment 1 (1.1-4), Discussion Seminar I | 1.4 HW & Q |                             |

## Wednesday, April 6, 2023

## 10-10:50 am (17-206)

You guys are amazing! We had the odd incident with the lost student at the start of class yesterday. Yet even though I hadn't provided any instructions and left class before it started, you organized yourselves into groups and started doing math. I am very proud of all of you and was bragging about your amazingness to my colleagues.

## What to do to be ready for tomorrow

- 1.1 HW and Quiz in MyLabs are due tonight about midnight
- Watch and take notes on the 1.3 video
- Do you want me to extend out the deadline for Discussion Seminar 0 until tonight at 11:50 pm.
  - o Does anyone need help getting into Canvas, MyLabs, Gradescope, or Slack?
- Pro-tips
  - The solutions to the group work are posted on my webpage. It's okay to check during class.
  - o I've been known to ask Assessment questions straight from the group work or notes.

# What's up next calendar

| 4/6  | Thu | 1.3: Vector Equations                      | 1.1 HW & Q | <- HW = MyLabs homework     |
|------|-----|--|------------|-----------------------------|
| 4/7  | Fri | 1.4: The Matrix Equation Ax=b              |            | and Q = MyLabs quiz         |
| 4/8  | Sat | Weekend - No Class                         |            |                             |
| 4/9  | Sun | Weekend - No Class                         | 1.2 HW & Q | Slack 1 and Notes 1 (1.1-3) |
| 4/10 | Mon | 1.5: Solution Sets of Linear Systems       |            |                             |
| 4/11 | Tue | 1.7: Linear Independence                   | 1.3 HW & Q |                             |
| 4/12 | Wed | Catch-up and review day                    |            |                             |
| 4/13 | Thu | Assessment 1 (1.1-4), Discussion Seminar I | 1.4 HW & Q |                             |
|      |     |  |            |                             |

#### 11-12:05 pm (17-101)

## What to do to be ready for tomorrow

- 1.1 HW and Quiz in MyLabs are due tonight about midnight
- Watch and take notes on the 1.3 video
- Do you want me to extend out the deadline for Discussion Seminar 0 until tonight at 11:50 pm.
  - Does anyone need help getting into Canvas, MyLabs, Gradescope, or Slack?
- Pro-tips
  - The solutions to the group work are posted on my webpage. It's okay to check during class.
  - o I've been known to ask Assessment questions straight from the group work or notes.

| 4/5  | Wed | 1.2: Row Reduction and Echelon Form        |            |                             |
|------|-----|--|------------|-----------------------------|
| 4/6  | Thu | 1.3: Vector Equations                      | 1.1 HW & Q | <- HW = MyLabs homework     |
| 4/7  | Fri | No class on Fridays                        |            | and Q = MyLabs quiz         |
| 4/8  | Sat | Weekend - No Class                         |            |                             |
| 4/9  | Sun | Weekend - No Class                         | 1.2 HW & Q | Slack 1 and Notes 1 (1.1-3) |
| 4/10 | Mon | 1.4: The Matrix Equation Ax=b              |            |                             |
| 4/11 | Tue | 1.5: Solution Sets of Linear Systems       | 1.3 HW & Q |                             |
| 4/12 | Wed | 1.7: Linear Independence                   |            |                             |
| 4/13 | Thu | Assessment 1 (1.1-4), Discussion Seminar I | 1.4 HW & Q |                             |

# Tuesday, April 4, 2023

## 10-10:50 am (17-206)

#### What to do to be ready for tomorrow

- Watch and take notes on the 1.2 video
- Submit the Discussion Seminar 0 on tech by 11:50 pm tonight.
  - Do you have access to the class Canvas page?
  - Were you able to get into MyLabs (likely by requesting temporary access)
  - o Can you see all four Slack channels (check your old email)
  - Did you get the invite to Gradescope (check your old email)
  - Did you find my webpage
- Pro-tips
  - There are time stamps on the videos
  - o I've started a collection of the videos explaining the proofs that are in the notes

#### What's up next calendar

| D   | ate | Topic                               | MyLabs     | Gradescope                  |
|-----|-----|-------------------------------------|------------|-----------------------------|
| 4/3 | Mon | Introductions                       |            |                             |
| 4/4 | Tue | 1.1: Systems of Linear Equations    |            | Discussion Seminar 0        |
| 4/5 | Wed | 1.2: Row Reduction and Echelon Form |            |                             |
| 4/6 | Thu | 1.3: Vector Equations               | 1.1 HW & Q | <- HW = MyLabs homework     |
| 4/7 | Fri | 1.4: The Matrix Equation Ax=b       |            | and Q = MyLabs quiz         |
| 4/8 | Sat | Weekend - No Class                  |            |                             |
| 4/9 | Sun | Weekend - No Class                  | 1.2 HW & Q | Slack 1 and Notes 1 (1.1-3) |

## 11-12:05 pm (17-101)

## What to do to be ready for tomorrow

- Watch and take notes on the 1.2 video
- Submit the Discussion Seminar 0 on tech by 11:50 pm tonight.
  - Do you have access to the class Canvas page?
  - Were you able to get into MyLabs (likely by requesting temporary access)
  - Can you see all four Slack channels (check your old email)
  - Did you get the invite to Gradescope (check your old email)
  - Did you find my webpage
- Pro-tips
  - There are time stamps on the videos
  - o I've started a collection of the videos explaining the proofs that are in the notes

| Di  | ate | Topic                               | MyLabs     | Gradescope                  |
|-----|-----|-------------------------------------|------------|-----------------------------|
| 4/3 | Mon | Introductions                       |            |                             |
| 4/4 | Tue | 1.1: Systems of Linear Equations    |            | Discussion Seminar 0        |
| 4/5 | Wed | 1.2: Row Reduction and Echelon Form |            |                             |
| 4/6 | Thu | 1.3: Vector Equations               | 1.1 HW & Q | <- HW = MyLabs homework     |
| 4/7 | Fri | No class on Fridays                 |            | and Q = MyLabs quiz         |
| 4/8 | Sat | Weekend - No Class                  |            |                             |
| 4/9 | Sun | Weekend - No Class                  | 1.2 HW & Q | Slack 1 and Notes 1 (1.1-3) |

# Monday, April 3, 2023

# 10-10:50 am (17-206)

# What to do to be ready for tomorrow

- Watch and take notes on the 1.1 video
- Start working on the Discussion Seminar 0 on tech ... Canvas, MyLabs, Slack, Gradescope, Webpage

# What's up next calendar

| Date    | Topic                               | MyLabs     | Gradescope                  |
|---------|-------------------------------------|------------|-----------------------------|
| 4/3 Mon | Introductions                       |            |                             |
| 4/4 Tue | 1.1: Systems of Linear Equations    |            | Discussion Seminar 0        |
| 4/5 Wed | 1.2: Row Reduction and Echelon Form |            |                             |
| 4/6 Thu | 1.3: Vector Equations               | 1.1 HW & Q | <- HW = MyLabs homework     |
| 4/7 Fri | 1.4: The Matrix Equation Ax=b       |            | and Q = MyLabs quiz         |
| 4/8 Sat | Weekend - No Class                  |            |                             |
| 4/9 Sun | Weekend - No Class                  | 1.2 HW & Q | Slack 1 and Notes 1 (1.1-3) |

# 11-12:05 pm (17-101)

# What to do to be ready for tomorrow

- Watch and take notes on the 1.1 video
- Start working on the Discussion Seminar 0 on tech ... Canvas, MyLabs, Slack, Gradescope, Webpage

| Date    | Topic                               | MyLabs     | Gradescope                  |
|---------|-------------------------------------|------------|-----------------------------|
| 4/3 Mon | Introductions                       |            |                             |
| 4/4 Tue | 1.1: Systems of Linear Equations    |            | Discussion Seminar 0        |
| 4/5 Wed | 1.2: Row Reduction and Echelon Form |            |                             |
| 4/6 Thu | 1.3: Vector Equations               | 1.1 HW & Q | <- HW = MyLabs homework     |
| 4/7 Fri | No class on Fridays                 |            | and Q = MyLabs quiz         |
| 4/8 Sat | Weekend - No Class                  |            |                             |
| 4/9 Sun | Weekend - No Class                  | 1.2 HW & Q | Slack 1 and Notes 1 (1.1-3) |