



TAM 210/211 Introduction of Statics

DISCUSSION SESSION



**** Webpages ****

- **Course Website:** <https://courses.grainger.illinois.edu/tam210/fa2026>
 - Lecture notes, course recordings, reference pages, ..., **every information about the course**
- **Campuswire:** <https://campuswire.com/c/GB07E1DE3>
 - Course notification, QnA, direct message to staffs
 - **USE CAMPUSWIRE** for **every course related question** (don't email staffs)
- **PrairieLearn:** https://us.prairielearn.com/pl/course_instance/225343/assessments
 - Homework
 - Discussions
- **PrairieTest:** <https://us.prairietest.com/pt>
 - Exam/review session reservation
- **Canvas:** <https://canvas.illinois.edu/courses/72017>
 - Gradebook

Discussion Session

- **Discussion [Session name]: every [Day] [Time]**
- **What do we do in discussion?**
 - Work with your group to solve the worksheet (PrairieLearn)
 - Review key ideas from the lecture and check your understanding
 - Ask questions to the TA or CAs anytime
- **Grade policy**
 - Discussion counts for 10% of the course grade
 - Participation and attendance & PrairieLearn worksheets
 - Late arrivals > **5 mins** are marked absent
 - Please avoid distractions during the discussion
 - Missing discussion for unavoidable reasons → submit excused absence form

WEEK 1 – Python Intro

- Linear algebra – how to solve systems of equations

$$x + y + z = 6$$

$$y - 3z = 7$$

$$2x + 4y - z = 10$$

System of equations

$$\begin{array}{ccc} x & y & z \\ \times & \times & \times \\ \begin{bmatrix} 1 & 1 & 1 \\ 0 & 1 & -3 \\ 2 & 4 & -1 \end{bmatrix} & \begin{bmatrix} x \\ y \\ z \end{bmatrix} & = \begin{bmatrix} 6 \\ 7 \\ 10 \end{bmatrix} \\ A & \vec{u} & \vec{b} \end{array}$$

Matrix-vector multiplication

$$\begin{bmatrix} x \\ y \\ z \end{bmatrix} = \begin{bmatrix} 1 & 1 & 1 \\ 0 & 1 & -3 \\ 2 & 4 & -1 \end{bmatrix}^{-1} \begin{bmatrix} 6 \\ 7 \\ 10 \end{bmatrix}$$

$\vec{u} \qquad A^{-1} \qquad \vec{b}$



Don't use GPT!

WEEK 1 – Python Intro

- Go to PrairieLearn and access to **'Disc1 – Tutorial – Python Intro'**
- Click **Disc1.1 Python Tutorial – Introduction**
- Open workspace 
- 1-basic-python-demo.ipynb, 2-numpy-demo.ipynb, 3-matplotlib-demo.ipynb: basic concept about python
- **required_tutorial.ipynb** → today's activity
- **#grade** → fill out the box

```
[ ]: #grade (enter your code in this cell – DO NOT DELETE THIS LINE)
```

```
# TODO: Compute the element-wise cosine of each element in 'values' and store the result in the 'answer1' variable
# Hint 1: Remember we can only do arithmetic on vectors when they're numpy arrays
# Hint 2: The linked math functions section above is a good starting point for computing the cosine

answer1 = ...
```

- Save the notebook (**[File] – [Save Notebook]**), go back to the PrairieLearn
- page, and click **Save & Grade** 



Don't use GPT!