

Overview: IEEE Pikes Peak STEAM-TEAMS Initiative

Dr. John Santiago





Logo Description

- Mountains symbolize high aspirations, resilience, and pushing boundaries
 - Pyramid of Success (self, team, organization leadership): Students, YP, LMAG members
 - High aspirations, resilience, & pushing boundaries, lifelong learning, striving for excellence, overcoming challenges
- Network Pattern
 - Curiosity, Connections, Creating Value
 - Nodes are teams/individuals
 - Circuit Patterns: Power of Innovation
 - Mentorship, teamwork, network effects
- Lightning Bolt
 - Powerful Breakthroughs
 - Rapid Knowledge Transfer
 - Impact (Creating Value)

Strategic Partnership between IEEE PPS & D38

- IEEE Education Week 2024: 5-webinar series on Digital Privacy and AI, Electronic Design Automation, Supply Chain Management, Increasing Productivity and Multi-media Content Generation with AI, AI-Assisted STEM tutoring:
 - [2024 IEEE Education Week | IEEE Pikes Peak Section](#)
- Education Leadership Counsel (ELC), UCCS-Lead
 - Example: potential Student Pipeline from ET to EE/CE for UCCS (similar to CTU experience)
- Develop YouTube Channel with multimedia content on IEEE/D38
 - We can help as guest speakers, lesson plans, or part-time instruction
- IEEE Industry Content Platform (requested extension for STEAM related topics, primary audience is industry from many disciplines, like cybersecurity and AI), t
 - AI-assisted content generation
 - Converts research sources for reader-friendly of best practices in industry
 - Recently appointed to be part of editorial team
 - Dr Santiago, member of editorial team, examples
- Currently working with Colorado State Senator/Representative, Kent Lambert, as doctorate committee member and industry sponsor
- IEEE.TV: Digital Privacy and AI, USAFA presentation in Nov 2023 on AI and e-Learning

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Events Calendar

< March 2025 >

M	T	W	T	F	S	S
24	25	26	27	28	1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31	1	2	3	4	5	6

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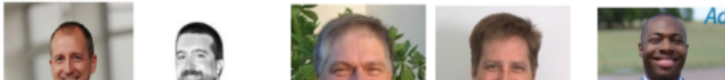
WELCOME TO THE IEEE PIKES PEAK SECTION



Recognition and Awards

Congratulations to the following and New IEEE Senior Members!

2024 Senior Upgrade Class



Amanda

Hello and welcome to the IEEE Pikes Peak Section website. We offer wide range of services to boost and help with your career, especially networking opportunities!

You can visit <https://ieee.org> for more general questions on members' benefits.

My name is Amanda. What is your name?

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- Student Activities ▸ **Squishy-Circuits**
- Section Chapters ▸ STEM Demos
- Engineering Unleashed ▸ H5P Demos
- Growth Mindset for Students ▸ PhET Demos
- IEEE EA Education Life Cycle ▸ PhET Demos – Math
- Professional Development ▸ Algodoo Demos
- TinkerCAD
- STEAM-TEAMS-notes
- Saylor Academy

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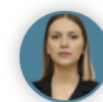
IEEE PIKE

TION!!!

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Squishy-Circuits

IEEE PIKES PEAK SECTION: AN EVOLVING AND ESTABLISHED LEADER IN STEAM TEAMS

Check Out Our Squishy Circuits Program and More

The total components cost shown below is approximately \$200 as of December 2024.



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ESTABLISHED LEADER IN STEAM TEAMS

Check Out Our Squishy Circuits

Program and More

The total components cost shown below is approximately \$200 as of December 2024.

When you click on blue checkmark, you get either an image, text or video or all.



Play Doh Modeling

Play Doh Modeling Clay - 20 items



- Vision**
 - Scheduled Meetings
 - Meeting Notes
 - What-If-Festival+More
 - Training Videos
 - Projects
 - Simulations
 - Resources
- LMAG-YP
 - Non-Squishy Resources
 - STEM Grants
 - IEEE Education Cycle
 - DiscoverE
 - ICP

Playlist of Past Successful STEAM/STEM Student Activities with the Pikes Peak Communities

• Please View First Five-Six Videos in Video Playlist Below of Past Student Activities



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11 Feb 2025 (Tues), 5:30 pm – 7:00 pm, 21st Century Library, Room B6 (see next tab with meeting notes)

17 Mar 2025 (Mon), 5:00 pm – 7:00 pm, 21st Century Library, Room B6

21 Apr 2025 (Mon), 5:00 pm – 7:00 pm, 21st Century Library, ENT Conference Room

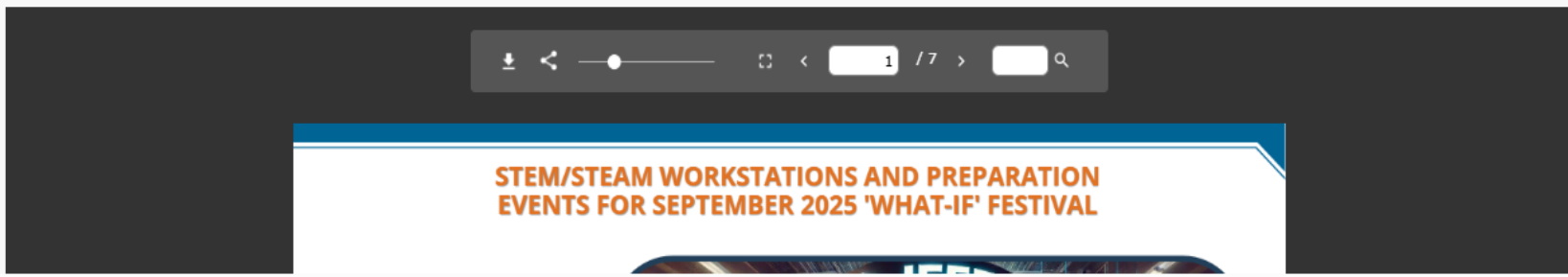
12 May 2025 (Mon), 11:00 am – 1:15 pm, 21st Century Library, ENT Conference Room

STEAM TEAMS RESOURCES AND TOOLS

Here are some resources to prepare yourself before the meetings: [STEAM-TEAMS-notes](#) | [IEEE Pikes Peak Section](#)

11 Feb 2025, 5:30 pm – 7:00 pm, Download Documents

- [Powerpoint](#)
- [pdf](#)



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General Information

[Link to more lesson notes](#)

11 Feb 2023, 5:30 pm - 7:00 pm

Flyer Link: [STEM/STEAM Workstations and Preparation Events for September 2025 'What-If' Festival : vTools Events | vTools IEEE](#)

The schedule of confirmed reserved meeting rooms can be found in the previous tab of this webpage.

The agendas and additional documentation for this meeting and upcoming meetings can be found here and currently a work-in-progress: [STEAM-TEAMS-notes | IEEE Pikes Peak Section](#)

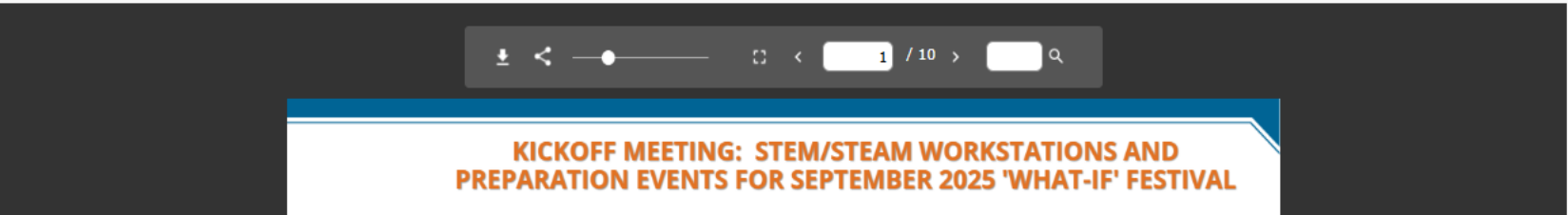
Squishy Circuit plus STEAM/STEM Demos

The presentation also includes feedback from the meeting participants. The leading topics for future STEAM/STEM meetings are more demos and production of STEAM/STEM demos. Results of the end-of-meeting surveys will be updated as more participants provide more feedback for community outreach for educating the public about what is engineering?

The cold weather and scheduled conflicts affected the attendance as well. Future meetings are planned for those who could not attend.

Current and planned STEAM/STEM demos can be found here: [STEM Demos | IEEE Pikes Peak Section](#).

e-learning widgets for interactive learning for self-motivated students can be here: [e-Learning Demos | IEEE Pikes Peak Section](#)



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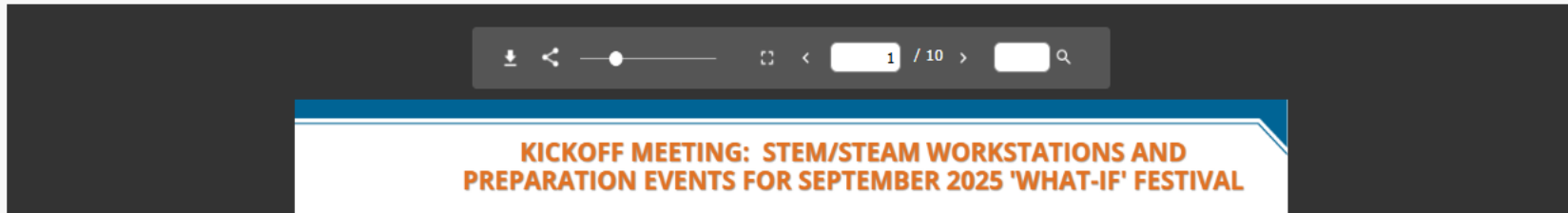
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STEAM-TEAMS-notes

STEAM TEAMS MEETINGS AND NOTES

This web page documents the series of STEAM-TEAMS meetings for 2025.

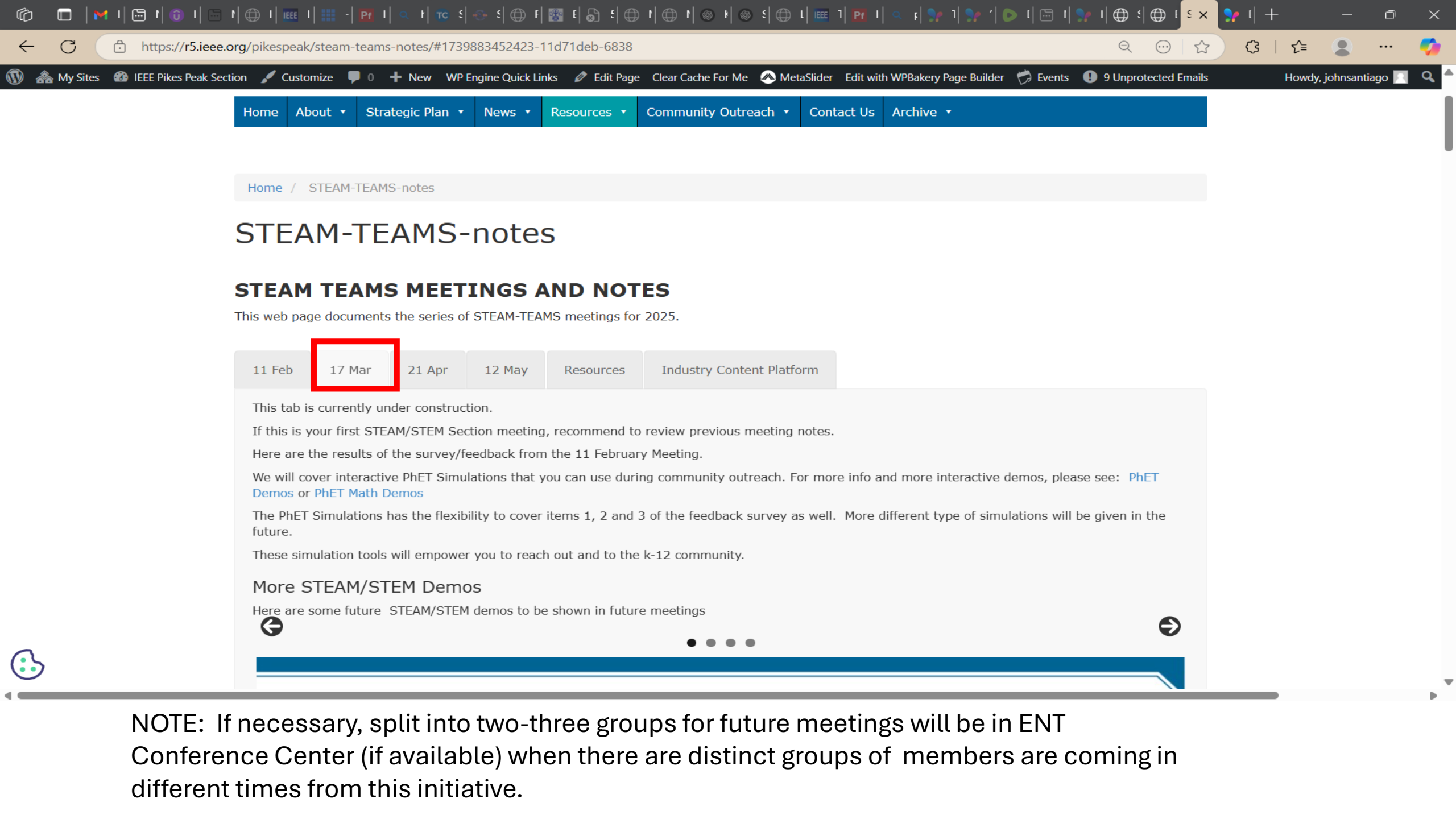
- 11 Feb
- 17 Mar**
- 21 Apr
- 12 May
- Resources
- Industry Content Platform

BRIEF WEBSITE OVERVIEW

Dr Santiago presented a brief overview of the IEEE Pikes Peak Section (PPS) Website by showing how to navigate key sections found within the website. The overview includes the following:

- Young Professional Calendar. Shown on the left page of the website, this shows the current activities are currently ongoing in the section. Young Professional is emphasized since the overall objective is to prepare the Young Professional members to be leaders in Section/Chapters/Group. A





STEAM-TEAMS-notes

STEAM TEAMS MEETINGS AND NOTES

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- 11 Feb
- 17 Mar**
- 21 Apr
- 12 May
- Resources
- Industry Content Platform

This tab is currently under construction.

If this is your first STEAM/STEM Section meeting, recommend to review previous meeting notes.

Here are the results of the survey/feedback from the 11 February Meeting.

We will cover interactive PhET Simulations that you can use during community outreach. For more info and more interactive demos, please see: [PhET Demos](#) or [PhET Math Demos](#)

The PhET Simulations has the flexibility to cover items 1, 2 and 3 of the feedback survey as well. More different type of simulations will be given in the future.

These simulation tools will empower you to reach out and to the k-12 community.

More STEAM/STEM Demos

Here are some future STEAM/STEM demos to be shown in future meetings

NOTE: If necessary, split into two-three groups for future meetings will be in ENT Conference Center (if available) when there are distinct groups of members are coming in different times from this initiative.

21st Century Library: ENT Conference Center



kitchenette



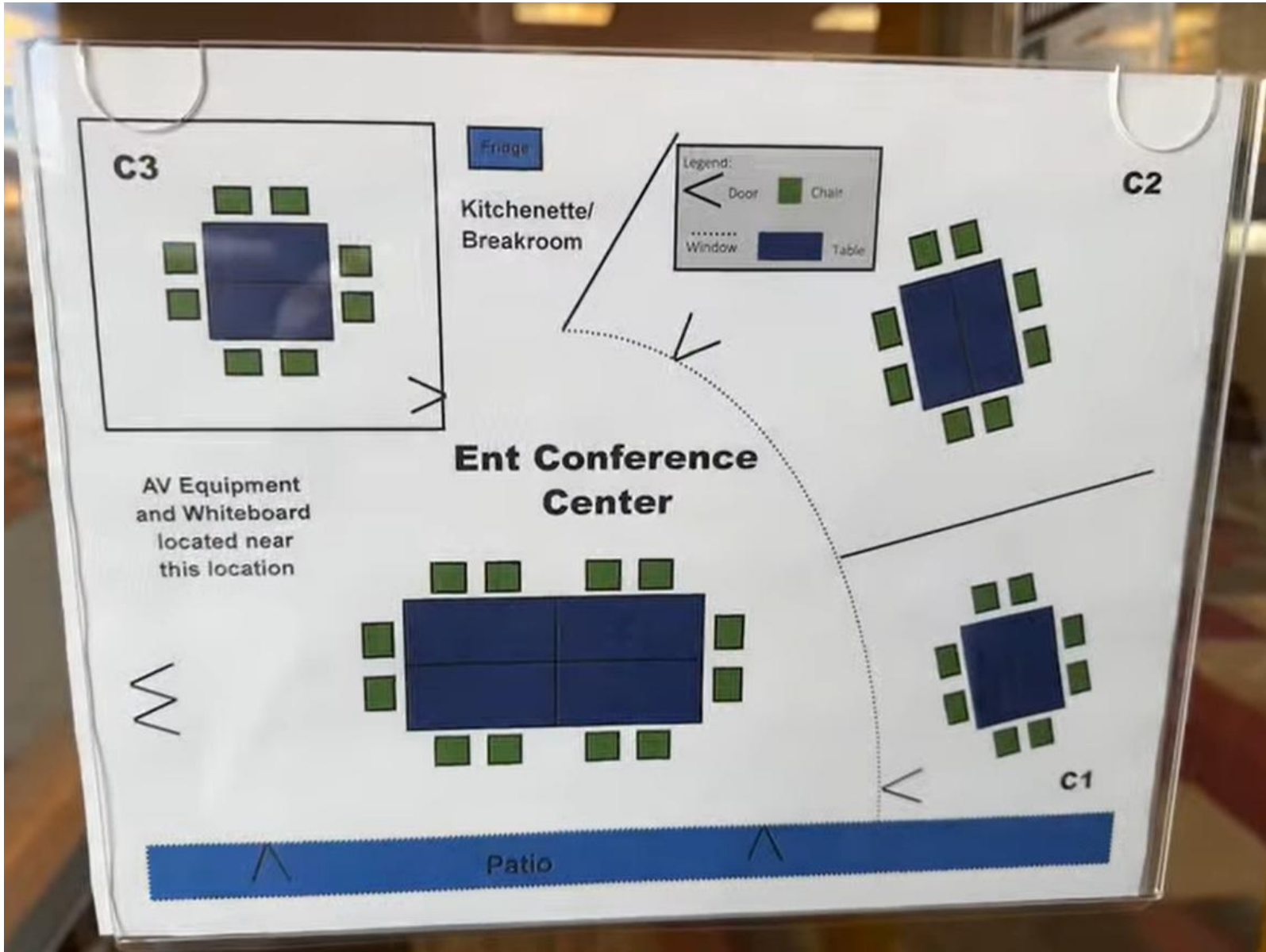
main conference area



ENT Conference Center Layout
Main with 3 breakout rooms
(C1, C2, C3) & kitchenette



view of patio from main
conference area





patio view from main conference room



Main Conference Area

C2

C1



Extra Slides



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Mentorship, Engineering Excellence, and Leadership Development