

# **Penn BMES**

## **Chapter Development Report**



**2024-2025**



# 1. Renewal Document

## Faculty Advisor Information

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Title: Assistant Professor, Bioengineering and Pathology and Laboratory Medicine

## Core Member Information

| Name            | Email  | Chapter Position          |
|-----------------|--|---------------------------|
| Kyulee Kim      | <a href="mailto:Kyulee26@seas.upenn.edu">Kyulee26@seas.upenn.edu</a> | President                 |
| Ellie MacMullan | <a href="mailto:elliemac@seas.upenn.edu">elliemac@seas.upenn.edu</a> | Vice President            |
| Chiara Cline    | <a href="mailto:chiaramc@seas.upenn.edu">chiaramc@seas.upenn.edu</a> | Treasurer                 |
| Cassidy Schuman | <a href="mailto:cschuman@seas.upenn.edu">cschuman@seas.upenn.edu</a> | VP Outreach               |
| Ian Peng        | <a href="mailto:ipeng@seas.upenn.edu">ipeng@seas.upenn.edu</a>       | VP External               |
| Krish Modi      | <a href="mailto:kdmodi@seas.upenn.edu">kdmodi@seas.upenn.edu</a>     | VP Internal               |
| Ryan Ong        | <a href="mailto:ryanong@seas.upenn.edu">ryanong@seas.upenn.edu</a>   | VP Marketing & Technology |
| Rachel Kim      | <a href="mailto:rachskim@seas.upenn.edu">rachskim@seas.upenn.edu</a> | Future VP External        |
| Anya Stewart    | <a href="mailto:anyab19@seas.upenn.edu">anyab19@seas.upenn.edu</a>   | General Member            |
| Eloise Gaudet   | <a href="mailto:egaudet@seas.upenn.edu">egaudet@seas.upenn.edu</a>   | General Member            |

## Chapter Website

<https://bmes.seas.upenn.edu/board/bmes-board/>

## Department Website

<https://be.seas.upenn.edu/>

## Free New Membership

Jonathan Largoza | Future Secretary | [jlargoza@seas.upenn.edu](mailto:jlargoza@seas.upenn.edu)

# PENN BMES

## 2024-2025 CDR



President: Kyulee Kim  
Email: [kyulee26@seas.upenn.edu](mailto:kyulee26@seas.upenn.edu)  
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This year, Penn's chapter of the Biomedical Engineering Society (BMES) expanded our involvement in Penn's community, culminating in winning Penn Engineering's Club of the Year award. Annual initiatives such as the Alumni Dinner, monthly wellness events, faculty lunches, and the graduate student mentorship program saw increased attendance due to the incredible organizational efforts of all our committees and the marketing team. These events have been cornerstones of BMES' impact on Penn, providing students with networking opportunities with professionals, faculty, and other students, as well as fun social events to balance the strenuous schedule. We also instituted new events: Our first-ever high school research competition attracted over 45 students from local Philadelphia schools to compete, reaching max capacity in the lab. Under the guidance of BMES mentors, the students were tasked with designing either a prosthetic, wearable device, or diagnostic device. We also held a successful biotech tour with fifteen members of the bioengineering community at Penn, who attended a three-hour tour of Johnson & Johnson's largest R&D facility. We increased our collaboration with our like-minded clubs on campus in areas such as healthcare, chemistry, and other engineering majors. We helped host a fall research symposium with the Wharton Healthcare Club and Penn Undergraduate Chemistry Society. Socially, we planned a semi-formal with Penn's Materials Science and Chemistry and Biomolecular Engineering. At its core, BMES is about community. We create spaces for students to connect and collaborate, making a lasting impact on Penn Engineering.



Dear Award Selection Committee,

The BMES Student Chapter at the University of Pennsylvania is dedicated to fostering a supportive, engaging, and inclusive environment for all members of our bioengineering community. Our chapter empowers students in their academic, professional, and personal development by providing opportunities that span mentorship, outreach, career preparation, and community building through our four committees—Internal, External, Outreach, and Marketing and Technology (M&T). Over the 2024-2025 academic year, Penn BMES grew to over thirty members on the executive board, and our increase in events demonstrates that. We hosted over thirty events that engaged students across all class years, alumni, faculty, and local high school students. Our mission was to connect the full breadth of the biomedical engineering community, from Penn undergraduates to prospective engineers and industry professionals.

To support academic and career development, we organized workshops, biotech tours, and speaker events featuring leaders in the field. Our annual BE Alumni Dinner brought together 250 students, alumni, and faculty in an evening of meaningful networking and mentorship. Additionally, we hosted the “Breakthroughs in Bioengineering” lecture with Dr. Ali Khademhosseini and facilitated a Johnson & Johnson Biotech Tour, exposing students to real-world industry environments. Collaborations with other engineering student groups, such as the WUHC and PUCS Research Conference, fostered interdisciplinary learning and discussion. Several more panels featuring undergraduate students showcased the incredible work that goes on at Penn Engineering. A highlight of our professional development was the biotechnology tour of Johnson & Johnson’s largest R&D facility located in the suburbs of Philadelphia. We took fifteen students on a three-hour tour where they learned about the drug development process from idea iteration, chemistry, quality control, and regulations. Already, our external committee has procured funds to fly in a renowned biotech researcher for a panel next year.

A key component of professional development is mentorship which BMES fosters through our faculty lunches and Graduate Student Mentorship Program. In addition to the academic workshops and panels led by upperclassmen, providing students with tips on navigating Penn’s curriculum and choosing research or minor opportunities, the faculty lunches are an excellent opportunity for undergraduates to learn more about faculty research at Penn and the world of academia. Our graduate student mentorship program combines social and academic events like a Family Feud study break and a coffee chat series to connect students across levels to give guidance on research, classes, and life.

Our outreach committee which runs the graduate student mentorship is also responsible for giving back to the greater community. This year we organized a BMES x Penn American Red Cross blood drive and hosted multiple bake sales, raising over 150 dollars. Our first-ever High School Research Competition is being held in April, with over 45 local Philadelphia high school students signed up to attend. At the brief virtual introduction, the students were presented with their task: design a device that is either a prosthetic, diagnostic or another piece of wearable technology. The students will visit BE labs, get a tour, and then have five hours to design in the lab with the help of BMES mentors, giving the students hands-on experience in the scientific design process. We also initiated new volunteering efforts at Philly House to serve meals to local residents in need.

To promote student wellness and social connection, BMES external and internal hosted events like our Spring Formal, BE Poker Night, and wellness activities such as Shamrock Sunglass and Succulent Pot Painting. Programs like B(e)YO encouraged students in the same year to build relationships over meals, while lab hangouts and spikeball tournaments allowed for relaxed, community-building spaces. Biomedical engineering is a difficult major, and students deserve time to rest and connect outside of the classroom.

We believe that a strong student chapter supports every part of a student’s journey—academically, professionally, and socially. Our chapter has worked tirelessly to build a vibrant, inclusive space where students can grow, connect, and thrive. This report outlines our chapter’s impact over the past year and reflects our ongoing commitment to enhancing the Penn bioengineering experience. Thank you for your time and consideration.

Sincerely,  
Kyulee Kim | 2024-2025 President  
Ellie MacMullan | 2024-2025 Vice President





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# 5. Administrative Report

## Abstract

For the 2024–2025 academic year, the BMES Board at the University of Pennsylvania consisted of 29 members dedicated to serving the Bioengineering (BE), Engineering, and broader Penn communities. The board met weekly to organize events, share updates, and coordinate across committees. Communication was facilitated through email, GroupMe, and internal group chats, while a shared Google Drive housed all relevant documents and resources.

Each weekly meeting began with announcements from the Executive Board—including the President, Vice President, and Treasurer—followed by updates from the committee Vice Presidents (Internal, External, Outreach, and M&T). These segments were followed by breakout sessions for individual committees to plan and coordinate upcoming events.

Given the breadth of programming and the board's lean size, inter-committee collaboration was essential, particularly for large-scale events. This structure enabled efficient coordination while fostering a culture of teamwork and innovation across the chapter.

## Membership Information

**Board Members:** 29

**National Members:** 10

**General Members:** 150



# 5. Administrative Report

## Officer Information

**President**

Kyulee Kim

**Vice President**

Ellie MacMullan

**Treasurer**

Chiara Cline

**VP External**

Ian Peng

**External Members**

Pedram Bayat

Anya Mittal

Eloise Gaudet

Rachel Kim

Iris Wong

Emmanuel Tawaih

**VP Internal**

Krish Modi

**Internal Members**

Ben Nachod

Jonathan Largoza.

Makayla Cheng

Jada Hembrador

Katie Yu

Kevin Han

Yifan Zhai

**VP Outreach**

Cassidy Schuman

**Outreach Members**

Alekha Malhotra

Mariah Pabon

Devin Gottlieb

Carmela Jenckes

Saw Nwe

**VP M&T**

Ryan Ong

**M&T Members**

Anya Stewart

Emily Jlang

Jazlyn Tang

Liza Murphy



# 5. Administrative Report

## Chapter Meeting Dates and Agendas

| Date of Meeting | Agenda   |
|-----------------|--|
| 9/08/2024       | Welcome Back, Recruitment  |
| 9/15/2024       | Recruitment 101  |
| 9/29/2024       | Welcome new members, Committee meetings                                  |
| 10/13/2024      | BE Wellness, Research Panel, Bake Sale, Design Contest                   |
| 10/19/2024      | Faculty Lunch, Alumni Dinner, BE Mentorship, Biotech Tour                |
| 10/27/2024      | Alumni Dinner, B(e)YOs, Biotech Tour,                                    |
| 11/03/2024      | Design Contest, Alumni Dinner, Biotech Tour, Mentorship Kick-off         |
| 11/10/2024      | Professional Headshots   |
| 11/17/2024      | Wellness Events, B(e)YOs, Biotech Tour, Engineering Spikeball Social     |
| 11/24/2024      | Finals Study Breaks, Mentorship Events, Wellness Events, Internal Social |
| 1/26/2025       | Wellness Event, BE Poker, Upperclassmen Panel, BE Mentorship             |
| 2/02/2025       | Wellness Events, BE Poker, Semi-Formal, Speaker Events                   |
| 2/09/2025       | Wellness Event, Research Panels, Blood Drive                             |
| 2/16/2025       | Bake Sale, E-Week, Breakthroughs in Bioengineering, Blood Drive          |
| 2/23/2025       | Wellness Event, Upperclassmen Panel, BE Mentorship                       |
| 3/02/2025       | Faculty Lunch, Meet the PI, HS Research Competition, Wellness Event      |
| 3/23/2025       | BE Poker, Meet the PI, Semi-Formal, HS Research Competition              |
| 3/30/2025       | Wellness Events, BE Poker, Semi-Formal, BE Mentorship, HS Comp.          |
| 4/06/2025       | BE Poker, HS Research Comp., BE Mentorship                               |
| 4/13/2025       | New Board ('25-'26) Elections  |
| 4/20/2025       | Finals Break, Wellness Event, Philly House,                              |



# 6. Treasury Report

## Abstract

At the University of Pennsylvania, BMES maintains a careful and need-based budgeting approach to support events and programming throughout the year. Unlike other funding models, our budget is not predetermined. Instead, we receive contingency funding from Penn's Student Activities Council (SAC) and the Engineering Student Activities Council (ESAC), which are granted on a case-by-case basis depending on the projected cost of each event. We are grateful to have a strong relationship with both SAC and ESAC, which allows us to organize high-impact, well-attended programming. This past year, BMES prioritized spending on programming that supports community and academic engagement in the Department of Bioengineering. Major expenses included \$530 towards department-wide events such as "meet the PI" faculty luncheon. \$415 went towards industry and professional development events, such as industry speaker series. \$315 was spent on community outreach and wellness events. \$350 went towards social events, such as dinners across bioengineering classes. Administrative dues cost \$300 for the year. In total, Penn BMES spent \$1,910 over the course of the year. From fundraisers, \$220 was donated to Doctors Without Borders. For bigger scale events such as research conference and Alumni Dinner, we received over \$14,000 from Penn Bioengineering Department. Moving forward, we will continue to advocate for funding while expanding sponsorship to better serve members and students in Penn Bioengineering.

## Chapter Finances

| Category                              | Withdrawals                                      | Donations |
|---------------------------------------|--|-----------|
| Administrative                        | \$300  | -         |
| Social                                | \$350  | -         |
| Department-Wide Events                | \$530 + \$14,000<br>(funding from BE department) | -         |
| Community Outreach                    | \$315  | -         |
| Industry and Professional Development | \$415  | -         |
| Fundraisers                           | -  | \$220     |



# 7. Chapter Activities

## Abstract

During the 2024–2025 academic year, the University of Pennsylvania chapter of the Biomedical Engineering Society (Penn BMES) experienced a transformative period of growth and engagement. We achieved over a 200% increase in both the number of events hosted and overall student participation compared to previous years. Guided by our three strategic priorities—professional development, community building, and organizational growth—our board launched new initiatives such as a biotech site tour and a high school research competition, deepened interdisciplinary collaborations through events like our research conference and formal, and strengthened the foundation for future programming. By fostering meaningful connections among students, faculty, alumni, and industry professionals, Penn BMES continues to serve as a vital hub for leadership, learning, and support within the bioengineering community.

## Club Goals

### Goal 1: Professional Development Opportunities

Penn BMES dedicated significant efforts to advancing members' academic and career pathways through targeted professional development initiatives. This year's programming included the Meet the PI series, offering undergraduates direct access to leading faculty for discussions on research opportunities and graduate school preparation. We also coordinated a biotech site tour at Johnson & Johnson, giving students firsthand exposure to biomedical technologies and corporate R&D environments. Our annual Alumni Dinner facilitated mentorship and networking with Penn Bioengineering graduates across sectors—from startups to medicine to biotech consulting. Additionally, a high-profile speaker event with Dr. Ali Khademhosseini further broadened members' perspectives on innovation in the field. These initiatives equipped students with the resources needed to navigate diverse post-graduate trajectories.

### Goal 2: Community Building in Penn Bioengineering Community

To foster a more connected and supportive departmental culture, Penn BMES significantly expanded its social and wellness offerings. These events were designed to build informal peer relationships, relieve stress, and encourage interdisciplinary interaction. Monthly “B(e)YO” dinners brought students together over local food, while events like Poker Night, Finals Breaks, and Wellness Sessions created space for relaxation during high-pressure academic periods. A standout initiative was our co-hosted Spring Formal with the MSE Society and AIChE, which brought students across Penn Engineering together outside the classroom. Through these efforts, BMES promoted inclusion and student well-being in community among future bioengineers.



# 7. Chapter Activities

## Goal 3: Organizational Growth and Collaboration

This year marked a period of unprecedented growth for Penn BMES—both in leadership capacity and external partnerships. The board expanded from 18 to 29 members, allowing for more specialized roles and increased ability to plan and execute high-quality programming at scale. This internal growth directly supported our record-breaking number of events and elevated participation across all domains. Externally, we strengthened our mentorship partnership with GABE (Graduate Association of Bioengineers), matching undergraduates with graduate student mentors for sustained academic and professional guidance. We also launched a two-week High School Research Competition, led by BMES members, which connected Penn students with local high schoolers to inspire early interest in biomedical engineering. Additionally, we partnered with various undergraduate organizations at Penn to host events that serve the greater Penn community. These clubs include Penn Undergraduate Chemistry Society, Wharton Undergraduate Healthcare Club, Immunology Club, MSE Society, AIChE, and Penn American Red Cross chapter. Together, these initiatives reflect our commitment to interdisciplinary collaboration and sustainable chapter development.

## Calendar of Activities

| Date           | Event Name                     | Committee |
|----------------|--------------------------------|-----------|
| Weekly         | Board Meeting                  | N/A       |
| Frist Semester | Merch Design Competition       | M&T       |
| 2024-09-20     | 2024 Research Conference       | External  |
| 2024-09-24     | BMES x Red Cross Blood Drive 1 | Outreach  |
| 2024-10-16     | BMES Bake Sale                 | Outreach  |
| 2024-10-20     | Research Panel                 | External  |
| 2024-10-22     | Faculty Lunch 1                | Internal  |
| 2024-10-23     | General BE Wellness            | Internal  |
| 2024-11-12     | GABE Mentorship Kick-Off Event | Outreach  |
| 2024-11-15     | Alumni Dinner                  | Internal  |





# 7. Chapter Activities

| Date       | Event Name                                      | Committee |
|------------|---|-----------|
| 2024-11-22 | Johnson & Johnson Biotech Tour                  | External  |
| 2024-11-22 | B(e)YO Dinner 1                                 | Internal  |
| 2024-11-23 | Engineering Spikeball Social                    | External  |
| 2024-12-05 | Gingerbread Cookie Decorating                   | Internal  |
| 2024-12-08 | BMES Internal Social                            | N/A       |
| 2024-12-10 | GABE Hot Cocoa Event                            | Outreach  |
| 2024-12-15 | Finals Break 1                                  | Internal  |
| 2025-02-01 | B(e)YO Dinner 2                                 | Internal  |
| 2025-02-19 | BMES x Red Cross Blood Drive 2                  | Outreach  |
| 2025-02-19 | BMES Bake Sale 2                                | Outreach  |
| 2025-02-19 | Breakthroughs in Bioengineering                 | External  |
| 2025-02-25 | General BE Wellness 2                           | Internal  |
| 2025-02-26 | BE Upperclassmen Panel                          | External  |
| 2025-02-27 | BE Mentorship Family Feud                       | Outreach  |
| 2025-03-04 | Faculty Lunch 2                                 | Internal  |
| 2025-03-20 | Shamrock Sunglass Painting                      | Internal  |
| 2025-03-26 | Meet the Prof/PI                                | External  |
| 2025-04-05 | Spring Formal                                   | External  |
| 2025-04-10 | BE Poker Night                                  | Internal  |
| 2025-04-12 | High School Research Competition: Virtual Intro | Outreach  |
| 2025-04-14 | BE Mentorship Coffee Chats Begin                | Outreach  |
| 2025-04-19 | High School Research Competition: Design Day    | Outreach  |
| 2025-04-22 | Succulent Pot Painting                          | Internal  |
| 2025-04-26 | Philly House Volunteering                       | Outreach  |
| 2025-05-10 | Finals Break 2                                  | Internal  |



## 8. Social And Other Activities

### Abstract

This year, BMES worked towards building a connected community through a diverse range of social events. Our Merch Design Competition allowed students to showcase their creativity and school pride. It culminated in a student-designed official BMES sweatshirt. We hosted B(e)YO dinners in the fall and spring, offering casual opportunities for students to unwind, enjoy local cuisine, and strengthen personal connections beyond the classroom. The Engineering Spikeball Social brought together students from multiple engineering disciplines for a lively afternoon of friendly competition, encouraging cross-major interaction. We were also excited to host our annual BE Poker Night, blending strategy, fun, and community spirit. Our largest social event, the Spring Formal, united over 100 students across Bioengineering, Material Science, and Chemical Engineering for a night of celebration, reflection, and new connections. Each event was thoughtfully planned to foster engagement, reduce stress, and build lasting relationships amongst our members. By emphasizing both tradition and innovation, BMES has created a social calendar that truly reflects the diverse needs and interests of Penn's bioengineering community.

### Summary of Events

|                                 |                 |
|---------------------------------|-----------------|
| 1. Merch Design Competition     | 9/24-12/24/2025 |
| 2. BE Poker Night               | 4/10/2025       |
| 3. B(e)YOs                      |                 |
| a. Fall                         | 11/22/2024,     |
| b. Spring                       | 2/01/2025       |
| 4. Engineering Spikeball Social | 11/23/2024      |
| 5. Spring Formal                | 4/05/2025       |
| 6. BMES Board Social            | 12/08/2024      |



## 8. Social And Other Activities (cont.)

### Merch Design Competition

Date: 9/24 - 12/24/2024 | Attendance: X | Cost: \$0

We hosted a merch design competition, giving the BE community a chance to showcase creativity. The winning design was featured on official BMES merch, fostering school spirit and engagement.



**Engineering Merch Design Contest**

**Details**

Create a merch design for the Bioengineering department! Winners receive a free merch item of choice sporting their design.

Submitters do not need to be bioengineering students.

Submissions are due October 18th, 2024 by 11:59 pm. Scan the QR code to submit or email pennbmes@gmail.com

**Criteria:**

- Must include the words "Bioengineering" or "BE" and the year "2025"
- CANNOT mention Penn or use Penn logos



### BE Poker Night

Date: 4/10/2025 | Attendance: 45 | Cost: \$100

We held a BE Poker Night, bringing together students for a fun and competitive evening of Texas Hold'em. Participants will test their skills, enjoy friendly competition, and bond with fellow BE students.



BMES presents

# BE Poker Night

NO BUY-IN!

4.10.25 @ 6:30-9 PM

Raisler Lounge

! CAPACITY IS LIMITED !

Pizza and Light Refreshments Provided!

Interest form



### B(e)YOs

Date: 11/22/2024, 2/01/2025 | Attendance: 15\* | Cost: \$164\*

\*Average for each B(e)YO

We organized multiple B(e)YO events, where students took a break from their busy schedules to enjoy a dinner in West Philadelphia. These gatherings were a great way to relax, enjoy a meal, and connect with peers outside of the classroom.





## 8. Social And Other Activities (cont.)

### Engineering Spikeball Social

Date: 11/23/2024 | Attendance: 45 | Cost: \$120

This event brought together various engineering major students for a casual, high-energy afternoon of friendly competition and networking, offering a perfect opportunity to connect with peers while enjoying some outdoor activity.



### Spring Formal

Date: 4/05/2025 | Attendance: 110 | Cost: \$400

The Spring Formal brought together students from various disciplines – Bioengineering, Materials Science, and Chemical and Biomolecular Engineering – for a memorable night of celebration and networking, offering a chance to unwind and connect with peers in a fun, relaxed setting.



### BMES Board Social

Date: 12/08/2024 | Attendance: 15 | Cost: \$200

BMES Board Members gathered to celebrate the end of semester with Chinese food and karaoke. Board members were able to decompress and have a high quality bonding time!





## 9. Inter-Chapter Activities

### Abstract

Although we didn't host any formal inter-chapter activities this academic year, we're eager to change that moving forward. In the coming year, we plan to actively reach out and connect with nearby BMES chapters—especially at Temple, Drexel, and Princeton—to explore potential collaborations. Whether through joint speaker events, regional mixers, or case competitions, we see huge value in building a stronger local BMES network. These connections would not only expand our professional and social circles but also create new opportunities for leadership and innovation across campuses. It's a natural next step as our chapter continues to grow in scope and ambition.



# 10. Outreach Activities

## Abstract

This year's Outreach Activities focused on fostering wellness, community, and creativity within the Bioengineering (BE) student body. Through a series of engaging events, students were encouraged to take meaningful breaks, connect with peers, and celebrate the seasons together. Wellness events provided a supportive space to relax and recharge, with offerings like pizza socials and local halal food that brought students together over shared meals. Festive activities, including Gingerbread Cookie Decorating, Shamrock Sunglass Painting, and Succulent Pot Painting for Earth Day, allowed students to express creativity while celebrating holidays and meaningful themes. These events were not only fun and engaging but also served as reminders to prioritize balance and well-being amid academic demands. Additionally, Finals Breaks and the GABE Mentorship Study Break created opportunities for students to de-stress, socialize, and reconnect with their community during high-pressure times. Collectively, these outreach efforts contributed to a more supportive and inclusive environment within BE, encouraging students to care for their mental health while building strong peer relationships and a sense of belonging in the department.

## Summary of Events

|                                  |            |
|----------------------------------|------------|
| 1. General BE Wellness           | 10/23/2024 |
| 2. Gingerbread Cookie Decorating | 12/05/2024 |
| 3. General BE Wellness           | 2/25/2025  |
| 4. Shamrock Sunglass Painting    | 3/20/2025  |
| 5. Succulent Pot Painting        | 4/22/2025  |
| 6. Final Breaks                  |            |
| a. Fall                          | 12/15/2024 |
| b. Spring                        | 5/10/2025  |
| c. BE Mentorship                 | TBD        |





## 10. Outreach Activities (cont.)

### General BE Wellness

Date: 10/23/2024 | Attendance: 25 | Cost: \$130

We hosted a relaxing wellness event where students took a break from their busy schedules to enjoy delicious pizza and connect with their peers. It was a great way to unwind and foster community within BE.



### Gingerbread Cookie Decorating

Date: 12/05/2024 | Attendance: 15 | Cost: \$65

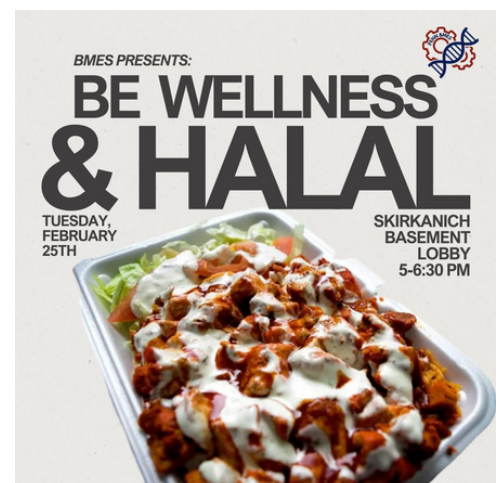
To celebrate the holiday season, we held a festive Gingerbread Cookie Decorating event! Students got creative with icing and sprinkles while enjoying a cozy, cheerful atmosphere filled with holiday spirit.



### General BE Wellness

Date: 2/25/2025 | Attendance: 25 | Cost: \$120

We hosted a wellness event featuring local halal food, giving students a chance to take a break, enjoy a great meal, and connect with one another in a relaxed and welcoming environment.







# 10. Outreach Activities (cont.)

## Shamrock Sunglass Painting

Date: 3/20/2025 | Attendance: 40 | Cost: \$55

To celebrate St Patrick's Day, we held a fun Shamrock Sunglass Painting event in BE Labs! Students got creative with festive designs and walked away with their own custom sunglasses to mark the occasion.



## Succulent Pot Painting

Date: 4/22/2025 | Attendance: TBD | Cost: TBD

In honor of Earth Day, we will be hosting a Succulent Pot Painting event in BE Labs where students decorate their own plant pots and take home a beautiful succulent. It will be a great way to celebrate sustainability and add a touch of greenery to their spaces.



## Finals Breaks

Date: 12/15/2024, 5/10/2025 | Attendance: 45\* | Cost: \$135\*

\*For fall finals break

We held two Finals Break events to help students de-stress during exam season. Attendees took a well-deserved break, enjoyed snacks, and recharged in a supportive and relaxed environment before heading back to their studies.

## BE Mentorship Finals Study Break

Date: TBD | Attendance: TBD | Cost: TBD

This end-of-semester event will provide a relaxing study break for members of the BE mentorship program. Students will reconnect with their mentorship families as a culminating end to the program.





# 11. Mentoring Activities

## Abstract

BMES aimed to foster mentorship opportunities within the bioengineering (BE) community at Penn and high schools in the wider Philadelphia area. Through our newly established BE mentorship program (Fall, 2023) and High School Research Competition (Spring, 2025), BMES created inclusive spaces for students to seek advice and form relationships in both initiatives. In partnership with the Graduate Association of Bioengineers (GABE), our BE mentorship program paired small groups of undergraduate and graduate bioengineering students to create “BE families”. Monthly events hosted throughout the semester, in addition to opportunities such as research seminars and coffee chat series, offered students an opportunity to strengthen relationships and a space to seek academic, research, and career support. These same principles were extended to mentorship within the high school bioengineering design competition which paired teams of high schoolers with BMES members to research and execute a bioengineering design challenge. Both the virtual introductory event as well as the in-person design day provided a platform for STEM outreach in local schools as well as advice relating to college applications and engineering as a whole. Across all events, the club facilitated community, mentorship, and academic enrichment for students at every level.

## Summary of Events

|                                      |                |
|--------------------------------------|----------------|
| 1. BE Mentorship Kick-Off            | 11/12/2024     |
| 2. BE Mentorship Cookies & Hot Cocoa | 12/10/2024     |
| 3. BE Mentorship Family Feud         | 2/27/2025      |
| 4. BE Mentorship Coffee Chat Series  | 4/14-4/25/2025 |
| 5. High School Research Competition  | 4/12-4/19/2025 |



# 11. Mentoring Activities (cont.)

## BE Mentorship Kick-Off

Date: 11/12/2024 | Attendance: 70 | Cost: \$0

This kickoff event welcomed members of the BE mentorship program to connect over pizza and fun activities. It served as an introduction for mentees and mentors to build relationships within their assigned mentorship families, fostering community and support early in the semester.



## BE Mentorship Cookies & Hot Cocoa

Date: 12/10/2024 | Attendance: 30 | Cost: \$0

A study break for members of the BE mentorship program, this event offered hot cocoa, cookies, and snacks during finals season. BE families enjoyed a relaxed environment to recharge and connect before the semester's end.



## BE Mentorship Family Feud Event

Date: 2/27/2025 | Attendance: 50 | Cost: \$0

Hosted in Wu & Chen Auditorium, this mentorship event featured a custom Penn-themed Family Feud game. BE mentorship families competed for prizes while enjoying a catered dinner from El Merkury, in a fun and collaborative atmosphere.





# 11. Mentorship Activities (cont.)

## BE Mentorship Coffee Chat Series

Date: 4/14 - 4/25/2025 | Attendance: 30\* | Cost: \$150

\*Based on sign-ups

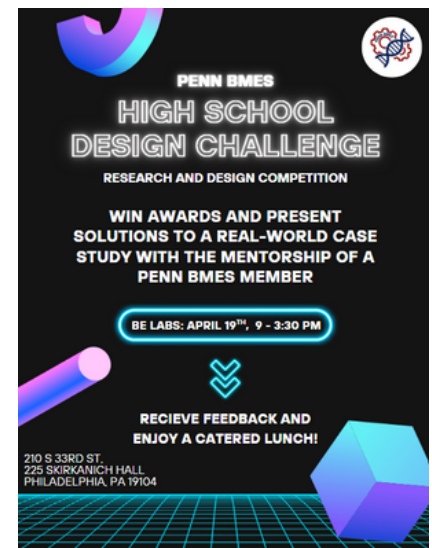
This event series will offer an informal one-on-one meeting between undergraduate and graduate student mentors to discuss research interests, graduate school advice, and career planning in a relaxed coffee chat setting. We hope to provide meaningful connections between students and offer the opportunity to meet members outside of assigned families



## High School Research Competition

Date: 4/12 - 4/19/2025 | Attendance: 61 | Cost: \$900

This virtual kickoff intends to connect high school students with their Penn undergraduate mentors to begin preparing for the BMES research and design competition. Teams will explore case studies and begin preparation for their design and presentations. BMES will host 46 students from eight different high schools in Philadelphia for an in-person research and design competition. Students will work in teams of 4-5 to present their solutions to case studies developed with the guidance of their undergraduate BE mentors, and be judged by a set of graduate students and BMES alumni on creativity and comprehensivity.





# 12. Industry and Professional Development Activities

## Abstract

This year's Industry and Professional Development activities enriched Bioengineering students' experiences by connecting academics with real-world applications in the workplace and academia. Events included two Faculty Lunches, where students engaged in meaningful, informal conversations with BE faculty about research, careers, and academic paths. A Research Panel featured cutting-edge work in cancer immunotherapy, neuroengineering, and rehabilitation robotics, offering attendees valuable insights and discussion on breaking into research. Students also participated in a Johnson & Johnson Biotech Tour, gaining exposure to real-world R&D at one of the industry's leading companies. Breakthroughs in Bioengineering featured Dr. Ali Khademhosseini, a renowned entrepreneur and researcher at the Terasaki Research Institute, who spoke about his work in biomaterials and tissue engineering. The BE Upperclassmen Panel provided guidance on dual degrees, research, and graduate programs, while Meet the Prof/PI spotlighted award-winning faculty—including Dr. Cesar de La Fuente and Dr. Claudia Leonel—leading innovations in synthetic biology and biomaterials. BMES co-hosted the inaugural 2024 Undergraduate Research Conference with WHUC and PUCS, drawing over 100 participants across disciplines. Supported by the Bioengineering Department, the event featured student poster and oral presentations, a fireside chat with Dr. Robert Plenge and Dr. Peter Schulam, and an awards dinner. It fostered campus-wide research exchange and professional inspiration for young scientists. These events, along with the Alumni Dinner, created a platform for mentorship, professional growth, and deeper engagement in the BE field.

## Summary of Events

|   |             |
|---|-------------|
| 1. Alumni Dinner                        | 11/15/2024  |
| 2. Faculty Lunches                      | 10/22/2024, |
| 3. Research Panel                       | 10/20/2024  |
| 4. Johnson & Johnson Biotech Tour       | 11/22/2025  |
| 5. Breakthroughs in Bioengineering      | 2/19/2025   |
| 6. BE Upperclassmen Panel               | 2/26/2025   |
| 7. Meet the PI                          | 3/26/2025   |
| 8. Research Conference with WUHC x PUCS | 9/20/2024   |





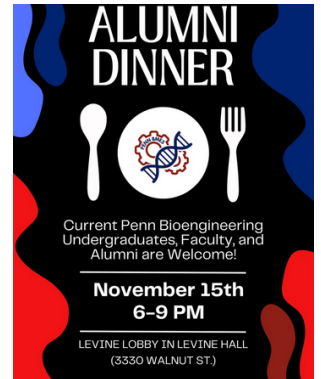
# 12. Industry and Professional Development Activities (cont.)

## Alumni Dinner

Date: 11/15/2024 | Attendance: 250 | Cost: \$12,265

We held our annual BE Alumni Dinner, bringing together 150 students, alumni, and faculty for an evening of networking and insightful conversations. Attendees had the opportunity to connect, share career experiences, and strengthen ties within the bioengineering community while enjoying a great meal.

Photos:



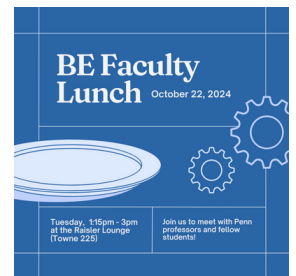
## Faculty Lunches

Date: 10/22/2024, 3/04/2025 | Attendance: 80\* | Cost: \$830\*

\*Average between the events

We hosted two Faculty Lunches, providing students with the opportunity to connect with BE faculty in a casual setting over a shared meal. These events fostered meaningful conversations about academics, research, and career paths while strengthening the BE community.

Photos:





# 12. Industry and Professional Development Activities (cont.)

## Research Panel

Date: 10/20/2025 | Attendance: 35 | Cost: \$50

The event showcased novel research on cancer immunotherapy, neuroengineering, autoimmunity, drug delivery, and rehabilitation robotics, offering attendees insightful presentations followed by a Q&A session that fostered engaging discussions.



## Johnson & Johnson Biotech Tour

Date: 11/22/2025 | Attendance: 15 | Cost: \$1,500

Bioengineering students were invited to engage with professionals in the biotech industry through an informative tour of JnJ's largest R&D facility, offering a unique opportunity to connect academic knowledge with real-world industry practices.

Photos:



## Breakthroughs in Bioengineering

Date: 2/19/2025 | Attendance: 20 | Cost: \$110

Dr. Ali Khademhosseini, CEO of the Terasaki Institute for Biomedical Innovation, serial biotech entrepreneur, and former UCLA & Harvard professor, shared exclusive insights into his groundbreaking research in biomaterials, organ-on-a-chip systems, and tissue engineering. As a leading innovator in bioengineering, he offered a rare opportunity to learn about his entrepreneurial journey and vision for the future, followed by a Q&A session.







# 12. Industry and Professional Development Activities (cont.)

## BE Upperclassmen Panel

Date: 2/26/2025 | Attendance: 25 | Cost: \$50

The event offered an exclusive opportunity for Bioengineering students to hear directly from experienced upperclassmen, including Rhodes Scholars and dual-degree candidates, about academic paths such as dual degrees, double majors, minors, and accelerated master's programs. Attendees gained valuable insights into navigating BE at Penn, with a chance to ask questions and receive personalized guidance over dinner.

**PENN BMES presents**

### BE UPPERCLASSMEN PANEL

Are you in BE wondering about what academic paths you can try?  
Learn from your BE Upperclassmen about:

- Dual Degree Programs
- Double Majors
- Minors
- Accelerated Master's

**Om Gandhi**  
Senior in Neuroscience and HSOC (Public Health)  
Masters in Bioengineering  
Incoming PhD at Oxford via Rhodes Scholar, Pre-Med

**Carly Zhao**  
Dual-Degree Junior in Finance and Bioengineering

**Chris Wan**  
Senior Dual Majoring in Bioengineering and CIS  
Masters in Robotics

**Arushi Mittal**  
Junior in Bioengineering  
Masters in Electrical Engineering  
(Concentration in Computer Engineering)

**RSVP**

**Wednesday**  
February 26th

**Time**  
7:00 PM - 8:00 PM

**Location**  
Greenberg Lounge (Skirkanich Hall)

**Food**  
Dinner will be provided!

**Biomedical Engineering Society**  
University of Pennsylvania

## Meet the PI

Date: 3/26/2025 | Attendance: 35 | Cost: \$50

The event featured principal investigators & professors de la Fuente, a pioneer in AI-driven antibiotic discovery and synthetic biology, and Claudia Loebel, focused on biomaterials and tissue medicine, who shared insights into their groundbreaking work across bioengineering fields.

### MEET THE PI

**CESAR DE LA FUENTE**  
AI-Driven Antibiotic Discovery & Synthetic Biology

**CLAUDIA LOEBEL**  
Biomaterials and Tissue Engineering

**RSVP HERE**

**Time**  
7:00-7:45PM

**Wednesday**  
March 26th

**Location**  
Greenberg Lounge (Skirkanich Hall 114)

**Food**  
Pizza Provided (First Come, First Serve)



## 12. Industry and Professional Development Activities (cont.)

### WUHC x BMES x PUCS Research Conference

Date: 9/20/2024 | Attendance: 120 | Cost: \$2000

BMES collaborated with Wharton Undergraduate Healthcare Club and Penn Undergraduate Chemistry Society to host an inaugural 2024 Research Conference, enabled by sponsorship from Penn Bioengineering Department. All current undergraduate students and incoming freshmen were invited to submit abstracts showcasing their research. Selected students had the opportunity to present their work through posters and oral presentations. The event also featured fireside chat with Dr. Robert Plenge and Dr. Peter Schulam, where they gave insights into career path in academia and industry. The event ended with dinner and award ceremony for participants.





# 13. Societal Impact Activities

## Abstract

As service remains a core value of BMES at Penn, the organization led several volunteer initiatives throughout the year to support communities both on and off campus. These student-driven efforts, carried out through campus partnerships and self-initiated projects, aimed to address real-world medical and societal challenges. By engaging with broader Philadelphia communities, the Penn Bioengineering department, and fellow students, BMES fostered meaningful connections through service. In collaboration with the Penn American Red Cross Association, BMES hosted two campus-wide blood drives, offering students a direct way to contribute to life-saving treatments and civic health. Additionally, the club organized three bake sales, raising funds to support outreach initiatives such as the High School Research Competition, while also donating proceeds to organizations like Doctors Without Borders. A volunteer shift at the Philly House further extended BMES's impact, as students helped prepare and serve meals to individuals experiencing housing insecurity. Across all these events, BMES combined tangible impact with community-building, reinforcing a culture of empathy, civic engagement, and responsibility beyond the academic setting.

## Summary of Events

### 1. BMES x Penn American Red Cross Blood Drive

|           |           |
|-----------|-----------|
| a. Fall   | 9/24/2024 |
| b. Spring | 2/19/2025 |

### 2. BMES Bake Sales

|           |            |
|-----------|------------|
| a. Fall   | 10/16/2024 |
| b. Spring | 2/19/2025  |

### 3. Volunteering with the Philly House

4/26/2025



# 13. Societal Impact Activities (cont.)

## BMES x Penn American Red Cross Blood Drives

Date: 9/24/2024, 2/19/2025 | Attendance: 42 | Cost: \$0

BMES carried out a blood drive in partnership with the Penn American Red Cross Association. This event offered the Penn BE community an opportunity to donate or volunteer and support civic engagement.



## BMES Bake Sales

Date: 10/16/2024, 2/19/2025 | Attendance: 45 | Cost: \$0

Held at Smokey Joe's, this late-night fundraiser raised money for BMES initiatives, including the high school research competition and social events for the BE community (\$170). The spring edition of the bakesale raised additional funds to support BMES outreach initiatives. Students participated by donating or purchasing baked goods, once again contributing to the success of high-impact programming like the high school research competition. Donated profit to Doctors without Borders (\$50)



## Volunteering with the Philly House

Date: 4/26/2025 | Attendance: 10\* | Cost: \$0

### \*Volunteers

A community service initiative offering the opportunity to volunteer during the lunch shift at the Philly House. Volunteers will help prepare and serve meals to the wider Philadelphia community.



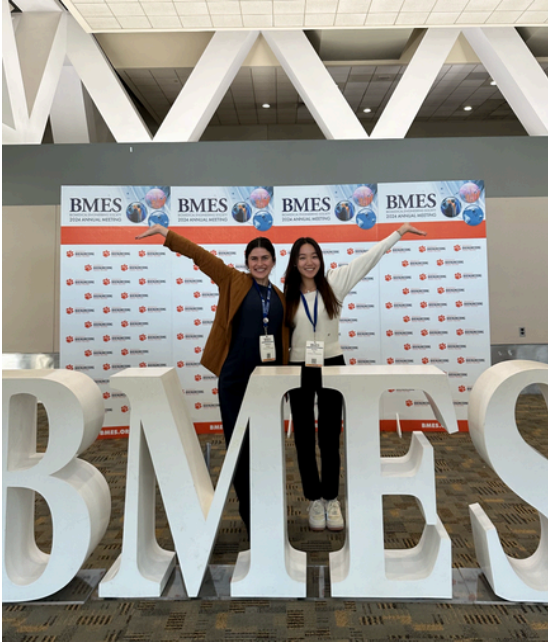




# 14. National BMES Meeting

## Past Experiences and Future Goals

This past fall, several of our board members attended the 2024 BMES National Conference in Baltimore, MD, where they shared their work through poster and oral presentations. It was a big moment for our chapter—getting to represent Penn on a national stage and connect with peers from other universities around the country. Not many students could attend the conference due to difficulty of acquiring enough funding. For next year, we hope to bring an even bigger group and make it easier for any board member who wants to attend. To make that happen, we're planning to actively seek out funding opportunities to help cover travel and registration costs. Long-term, we're excited to keep building on the momentum we've created at Penn and earn recognition at the national level for our chapter's work and impact.





# 15. Future Directions

## Next Year Chapter Goals

**1.Foster interdisciplinary collaboration across engineering and healthcare.** We plan to partner with more on-campus organizations such as the Materials Science Engineering (MSE) Society, Theta Tau (Engineering Fraternity), and Penn Undergraduate Biotech Society (PUBS) to co-host a series of workshops, panels, and case competitions. These collaborative events will be designed to give students exposure to the intersections of bioengineering, data science, and clinical innovation. Planned workshops will focus on building practical skills, such as CAD design and soldering, which are crucial for biomedical device development. We will also organize career panels where students can hear from professionals across multiple sectors—ranging from clinical practice to biotechnology and data science—about their career paths and the skills they need to succeed. Additionally, a case competition focused on clinical innovation will be planned, providing students with an opportunity to work in teams to design solutions for real-world healthcare challenges. These events will foster engagement across different disciplines, promote technical skill development, and allow students to apply their knowledge to complex, real-world issues.

**2.Deepen alumni engagement and interaction.** We plan to launch a three-part initiative to strengthen long-term alumni-student connections. First, we will develop a BMES Alumni Directory—a centralized, opt-in database that allows students to search for alumni by industry, role, and location to facilitate targeted outreach and informal mentorship. Second, we will introduce a BMES Alumni Newsletter & Spotlight Series, which will highlight alumni achievements, share career insights, and circulate job or internship opportunities. This digital platform will ensure ongoing engagement and make our alumni network a more accessible, dynamic resource for all members. Third, we will increase our LinkedIn presence by consistently posting event recaps, alumni spotlights, and open opportunities, while actively encouraging connections between current students and alumni. Through these efforts, we aim to create a sustainable, dynamic alumni network that offers long-term value, inspiration, and professional insight to our members.

**3.Encourage intra-club community and retention.**

To strengthen the internal culture of Penn BMES and retain engaged members across academic years, we plan to deepen intra-club connections through both structured and informal initiatives. At the committee level, we will host more frequent social events—such as ice cream runs, potlucks, and mini off-campus outings—to help members bond outside of task-driven settings. For first-year and new members, we will implement regular mentorship check-ins to ensure they feel supported, integrated, and confident in navigating both BMES and the broader bioengineering experience. Additionally, we will introduce a new series of low-pressure community events like game nights, coffee chats, Penn BE-themed trivia, and “Study with BMES” sessions to provide consistent touchpoints for connection throughout the semester. These strategies are designed to foster a greater sense of belonging, reduce burnout, and encourage long-term involvement by making BMES not just an academic or pre-professional resource, but a social and emotional anchor for students within the department.



# 15. Future Directions

## Next Year Chapter Goals

### **4. Expand national presence and inter-chapter collaboration.**

We aim to significantly increase student attendance at the BMES Annual Meeting by securing travel funding and advertising the opportunity to a broader portion of our board and general body. Attending the national conference not only allows members to present research and explore emerging fields, but also strengthens Penn BMES's visibility on the national stage. In parallel, we plan to initiate connections with nearby BMES chapters—such as those at Temple, Drexel, and Princeton—through joint socials, technical workshops, and regional meetups. These efforts will foster cross-campus exchange, build peer networks beyond Penn, and lay the groundwork for future multi-chapter initiatives.